



**NEAR EAST UNIVERSITY**  
**INSTITUTE OF GRADUATE STUDIES**  
**DEPARTMENT OF EDUCATIONAL PROGRAM AND INSTRUCTION**

**ASSESSMENT OF CURRICULA CONTENT OF GROUP GAMES  
IN PHYSICAL EDUCATION FOR ACHIEVING EDUCATIONAL  
OBJECTIVES**

**PHD DISSERTATION**  
**SHERZAD SABIR MOHAMMED**

**NICOSIA**  
**January, 25<sup>th</sup>**

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## Approval

We certify that we have read the thesis submitted by **Sherzad Sabir Mohammed** titled **“Assessment of Curricula Content of Group Games in Physical Education for Achieving Educational Objectives”** and that in our combined opinion it is fully adequate, in scope and in quality, as a thesis for the degree of PhD of Educational Sciences.

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### **Declaration**

I hereby declare that all of the information, documents, analysis, and results in this thesis were gathered and presented in accordance with the academic rules and ethical guidelines of the Near East University Institute of Graduate Studies. I also say that, as these rules and conduct require, I have given full citations and references for all information and data that wasn't made for this study.

SHERZAD SABIR MOHAMMED

...../...../2022

## **Dedications**

To

My Family, Instructors and Friends, especially those who have helped me.

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Finally, I thank and appreciate all the people who helped me conduct this study.

### **Abstract**

The study aims to identify the extent to which group games curricula achieve the cognitive, psycho-kinetic and emotional goals of students of physical education institutes in northern Iraq, and explore the perception of supervisors and trainers towards the content of the group games curriculum taught in physical education institutes to achieve cognitive, psycho-kinetic and emotional goals for students.

The scope of this study is limited to specialist supervisors and instructors from 10 physical education institutes, of whom (76) are specialized supervisors, and (142) instructors and participants will be randomly selected. This study has chosen a mixed method strategy to fulfil its research aims. This mixed approach combines quantitative and qualitative methods. The data collection tools in the qualitative part of the study were interview and observation, and in the quantitative part, a questionnaire was used to collect data. NVivo 12 software was used for the qualitative analysis, and SPSS for the quantitative analysis and the hypothesis test through an independent sample T-test. After both data analyses, a conclusion about the proposed research objectives was reached and the three hypotheses of this study were accepted.

The curricula of these institutes must be reviewed regularly to ensure that they are in line with the intended objectives. The methodological components of this study have been improved, as has the theory used in it. Focusing on the team games curriculum, which was first integrated into academia, a complete conceptual framework was built. Based on the qualitative data study, a team game approach is also proposed. Future data collection can benefit from the suggested items or tools. This study may be useful for physical education programs because it will help these programs to make decisions about their team sports curricula.

**Keywords:** Group games, physical education, curriculum assessment, knowledge objective, emotional objective, psycho-kinetic objective.

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### **List of Abbreviations**

HPE = Health and physical education

DNA = Deoxyribonucleic acid

PE = Physical education

WHO = World Health Organization

EO = Educational Objective

PKO = Psycho-kinetic objective

SEL = Social and emotional learning,

CASEL = The Collaborative for Academic, Social, and Emotional Learning

EUPEA = European physical education programs European physical education association.

TPSR= Teaching Professional and Social Responsibility

PL = Physically literate

FPE= Feedback in Physical Education

AFL = Assessment for learning

GDIT= General Directorate of Institutions and Training

MOE=Ministry of Education

API = Application programming interface

## CHAPTER I

### Introduction

#### 1.1 Background of the Study

Physical education is the representation of the physical activity. It aims to improve students' physical proficiency, mobility, and awareness of personal safety as well as their application of this knowledge these skills to a range of activities related to the promotion of an active and healthy lifestyle (Koka et al., 2019; Siedentop & Van der Mars, 2022). Studying physical activity is what physical education is, it aims to improve students' physical competence, mobility, and safety awareness as well as their capacity to use these abilities to engage in a range of activities important to the development of a healthy and active lifestyle (Almusawi, Durugbo, Bugawa, & Education, 2021; Pangrazi & Beighle, 2019). The knowledge, routines, and motor skills required for physical activity and wellness are fostered via cognitive teaching and material provided by physical education (Richards & Wilson, 2020; Siedentop & Van der Mars, 2022). Students can gain the knowledge and confidence they ought to maintain being physically active throughout their life by supporting frequent physical education in the classroom. By encouraging students to engage in a range of activities, including sports, specifically team sports, physical education aids in the development of students' teamwork skills. The youngsters know the advantages and importance of working together (Siedentop & Van der Mars, 2022). It also teaches children how to work together to achieve a common objective. It improves children's ability to learn. increases energy expenditure, endurance, muscle strength, and flexibility. increases strength, flexibility, response time, balancing, speed, and cooperation while enhancing all of your senses (Almusawi et al., 2021; Koka et al., 2019; Pangrazi & Beighle, 2019). As a consequence, the children's talents grow.

Students who participate in and excel in various physical activities will eventually acquire broad capabilities and abilities to successfully apply strategies, design principles, and original concepts (Pangrazi & Beighle, 2019; Siedentop & Van der Mars, 2022). The pupils focus on the game, make quick judgments, consider their own and others' performances, and look for methods to improve it. Students acquire confidence as a result of learning about leading healthy, active lifestyles and engaging in various physical activities (Almusawi et al., 2021; Richards & Wilson, 2020).

However, the researcher claimed group games rather than single physical activities (De Freitas & Society, 2018; Kinder, Kurz, & Nursing, 2018). Games in groups offer significant advantages over solo play and many other pursuits. They can help children become better citizens by teaching them the nuances of living in a society. They introduce young children to the fundamentals of collaboration, which are essential life skills (De Freitas & Society, 2018; J. E. Johnson, Sevimli-Celik, Al-Mansour, Tunçdemir, & Dong, 2019; Kinder et al., 2018). Activities that involve one or more players, moving with or without an item or implementing and playing under conditions that have been mutually agreed upon are known as games or educational games. Juniors and teens frequently play team-based physical games (Jiao, Traverso, Gai, & Development, 2021; Rikayoni & Rahmi, 2021). However, the intangible advantages of games have significantly evolved over the past few decades and are now more sophisticated, diversified, realistic, and pleasant. Sports can now be recognized as evolutionary-based and advantageous to mental development after considerable modification (Jiao, Traverso, Gai, et al., 2021; Rikayoni & Rahmi, 2021). All group members bear responsibility for the game's outcomes, which can benefit everyone by enhancing communication skills (De Freitas & Society, 2018; J. E. Johnson et al., 2019; Rasyid, Afrian, Asnaldi, & Bakhtiar, 2020). Additionally, each group has a unique spirit, which repeatedly makes playing the same game fun. Additionally, instructors who use games to enhance lessons with clear objectives and strategies may benefit. Individual games are primarily concerned with enhancing one's own talents, whereas group games are defined by a player's capacity to interact, uphold, and establish connections with others. Inadequate interpersonal skills, including communication and teamwork skills, significantly influence students' academic failure (De Freitas & Society, 2018; J. E. Johnson et al., 2019; Rasyid et al., 2020). Additionally, learning is an experience that includes intellectual, social, and emotional growth. Self-awareness, compassion, temperament control, emotional expression in a positive way, self-regulation, coordination, & communication are interpersonal skills that may be developed through group activities and games (De Freitas & Society, 2018; Jiao, Traverso, Gai, et al., 2021; J. E. Johnson et al., 2019; Rasyid et al., 2020; Rikayoni & Rahmi, 2021). Additionally, planning communication-related activities motivate children to speak up and interact with others.

Children may have a significant amount of fun playing group games, which also offer a great teaching opportunity for Psychological education techniques and strategies (De

Freitas & Society, 2018; Rikayoni & Rahmi, 2021). However, ensuring robust curricula in group games is one of the prime challenges in physical education. Instructors may design, carry out, and arrange educational activities more importantly and authentically using such standards curricula. Group games are a well-known and successful method of teaching health and physical education (De Freitas & Society, 2018; Jiao, Traverso, Gai, et al., 2021; J. E. Johnson et al., 2019; Rasyid et al., 2020; Rikayoni & Rahmi, 2021). Compared to other topics, physical education significantly improves instructors' personalities since it encompasses all curriculum areas, including educational, physical, psychological, and emotional components. In addition, physical education encourages educators to embrace healthy behaviors. Therefore, the curriculum should be able to accomplish the required outcomes by facilitating the participants' acquisition of the necessary educational, physical, and energetic abilities and other class-related activities.

Students' social and personal abilities improve because to physical education's robust curricula. Students can develop a feeling of responsibility and justice in leadership, coaching, and judging by working independently or in groups through good curricula and group game assessment. In the end, physical education gives kids various chances to develop their ability to compete successfully, think creatively, and push themselves. Bloom classified physical education objectives into emotional, psycho-kinetic, and educational. The instructors should identify traditional and behavioral objectives while developing their educational strategies. Educational objective displays the education policy of the institute, which defines the basis of desired objectives. Consequently, these objectives lead towards achieving educational goals by modifying the curricula content and adopting the most convenient and adequate teaching methods. (Darling-Hammond, 1990).

Imprecise objectives result in inappropriate standards for subject selection, vague educational content, and improper teaching methods. Therefore, the curricula are needed to modernize over time to meet the recent developments around the world.

Assessment and correction are recognized as an integral part of the curricula because they are firmly associated with those activities closely tied with the implementation of the curricula and the other major factors essential to achieve the curricula objectives and their contents.

The physical education institutes are considered new as compared to the other institutes in neighboring Arab countries and even in Iraq. These institutes' curricula

must be reevaluated periodically to align with the desired objectives. This can be achieved through having the perspectives of specialized educational supervisors and instructors of group games in these institutes.

### **1.2 Statement of the Problem**

The instructors realize the specified goals of these curricula by using the pedagogical competence that is included in the physical education curriculum. These objectives ought to be created as behavioral goals to help students fit into their surroundings socially and naturally. Additionally, they may help them by engaging them fully in the learning process so that they can ultimately accomplish the specified goals. Many instructors may not critically analyze these objectives during various educational phases, or they may be unable to effectively build them over various learning times, which are not permanent and subject to swift changes. These alterations may affect students' psychology and learning. Developed nations' educational success is judged by their ability to implement contemporary curricula that assist decent citizens in serving their country. People may not be able to handle current information gains otherwise. This identical thing happened in other Arab countries, including Iraq, among others (and more specifically, northern region of Iraq, which is offered vast authorities, including educational ones). As a result, the educational system in this area needs to develop more effective curricula and implement them in the most effective manner possible across all educational institutions, including institutes of physical education, to cultivate responsible citizens in the future. This may be accomplished by recognizing the diverse points of view held by educational authorities and specialist supervisors, in addition to instructors of group games at these institutes. This gives rise to the following lines of inquiry for further research:

- Does the content of the curriculum of group games taught in the institutes of physical education achieve the students' knowledge, psycho-kinetic, and emotional objectives?
- What is the perception of supervisors and instructors towards the content of the curriculum of group games taught in the institutes of physical education to achieve the knowledge, psycho-kinetic, and emotional objectives for the students?



### **1.3 The Objectives of the Research**

1. Identifying to what extent the curricula of group games achieve the knowledge objective for the students at physical education institutes in northern region of Iraq.
2. Identifying to what extent the curricula of group games achieve the psycho-kinetic objective for the students at physical education institutes in northern region of Iraq.
3. Identifying to what extent the curricula of group games achieve the emotional objective for the students at physical education institutes in northern region of Iraq.
4. Explore the perception of supervisors and instructors towards the content of the curriculum of group games taught in the institutes of physical education to achieve the knowledge, psycho-kinetic, and emotional objectives for the students.

### **1.4 Research Hypotheses**

1. The curricula of group games achieve the knowledge objective for the students of physical education institutes.
2. The curricula of group games achieve the psycho-kinetic objective for the students of physical education institutes.
3. The curricula of group games achieve the emotional objective for the students of physical education institutes.

### **1.5 Significance of the Study**

This study will lend a helping hand to the subject of physical education, both theoretically and practically. From a theoretical and academic point of view, firstly, this study will be beneficial in achieving the goals and objectives which are the core of physical education. Secondly, this study intends to add more theoretical literature on the context of physical education and group games. Further, this study intends to add value to the three specific dimensions of objective: knowledge objective, psycho-kinetic objective and emotional objective in relation to group games content curricula. Thirdly, this study is designed in mixed methods, unique in nature and novel in physical education and group games curriculum content focusing the assessment. Finally, this study is a first at physical education institutes in north of Iraq, considering qualitative and quantitative analysis simultaneously.

From a practical and policy-making point of view, firstly, this research will also be advantageous to policymakers and curricula developers to examine physical education

curricula on the kinetic, physical, and physiological aspects. Secondly, there is a need for policymakers and decision-makers to implement a strategic and more comprehensive approach to understanding how to sustain and encourage physical activity for students. Thirdly, Results from this study can be used to inform future curriculum reviewers and educational policymakers in the interest of creating and developing physical education curricula according to the needs, focusing on the objectives and skills that will enhance motivation and competency.

### **1.6 Scope of the Study**

The scope of this study is restricted to the specialist supervisors and instructors of the group games curriculum at the institutes of physical education in north of Iraq. Therefore, participants will consist of institutes of physical education, (76) specialized supervisors in (10) institutes located in each of the following cities (Erbil, Sulaimani, Duhok, Akre, Zakho, Shaqlawa, Koya, Ranya, Chamchamal, And Khanakin), and (142) instructors and participants will be selected at random.

In addition to that, this study is designed to investigate the assessment of curricula content of group games in physical education, focusing on achieving educational objectives. Furthermore, this study is limited to physical education of group games, covering all curricula aspects, such as educational, physical, psychological, and emotional aspects. This implies that this study will focus on knowledge, psycho-kinetic, and emotional objectives. Finally, this study follows a mixed methodology to analyze the data.

### **1.7 Study Limitations**

This research study has some practical limitations, which are emphasized in this segment. The study received low data records in an observational study from educational institutions. The sample size is minimal for this research, which solely looks at northern Iraqi educational institutions. A larger sample size, on the other hand, may have Yielded more varied findings as well as more precise statistical findings. The findings are industry specific. Therefore, it cannot be generalized to all educational organizations.

Semi structure interview was conducted face to face in person during covid-19 with extra precautions and a restricted environment that requires extra resources from researchers.

## **1.8 Educational system**

Since gaining autonomy in 1992, the government of northern Iraq has made strides in advancing and revising its education system, such as establishing new universities and schools, crafting new syllabuses, and introducing new courses. Since the early 1990s, the education sector has been substantially constructed from the bottom up and has grown dramatically in recent years. It provides all of the funding for education in public schools. Physical education plays a crucial role in helping students improve their academic performance, develop teamwork and problem-solving skills, and maintain a healthy weight. It also plays a significant role in helping students build their self-confidence and lessen the prevalence of violence in society. Schools are increasingly realizing the value of including physical education in their curricula. Individuals that participate in physical education grow to embrace growth, success, and goal-setting (Ahmed et al., 2015). The Ministry of Education, in cooperation with the Ministry of Higher Education and Scientific Research, established another branch of preparatory education, known as Institutes of Physical Education, as outlined in item (11) of the third paragraph of the Preparatory School System No (2) for 2009. Physical education is regarded as an essential and significant lesson in the government's educational system. As a result, special curricula for the study of physical education were approved and given to students at all educational levels; the importance of these curricula is demonstrated by how carefully they are planned and carried out. (Jukil, 2009) The Institutes of Physical Education is designed to provide specialized training in physical education and to prepare students for higher education in the field. The curriculum of these institutes focuses on physical fitness, motor skills, and the basics of physical education, as well as the scientific, psychological, and sociological aspects of physical education. The curriculum is designed to provide

students with the knowledge and skills needed to pursue higher education in physical education, such as sports science, health-related physical education, physical education leadership, and physical education teaching. The institutes also provide a range of courses in sports administration, recreation management, and sports psychology. The graduates of the Institutes of Physical Education can pursue higher education in the field of physical education and related fields or pursue a career in physical education. In addition to expanding its educational infrastructure, it has taken steps to improve the quality of education by introducing new curricula based on international standards, revising assessment and testing systems, and encouraging the use of modern educational technologies. Furthermore, it has implemented various teacher training programs to improve the quality of instruction. In order to ensure equal educational opportunities for all, it has also adopted various measures to reduce gender disparities and increase access to education in rural areas. These initiatives have played an important role in the overall development of the education system in Iraq.

### **1.9 Definition of Key Terms**

**Assessment:** this is a process aimed at assessing the value of things using appropriate measurement tools to collect data and give judgments. In other words, it is a tool through which the success of the curriculum can be measured to know to what extent it has achieved the predetermined objectives of the curriculum by collecting data about a given project, phenomenon, or subject and then studying these data scientifically (Romiszowski, 2016).

**Content:** is the sum of knowledge, skills, and reactional expertise aimed to be presented or acquired by the learner to develop his personality fully. Many other words refer to content, such as educational content, curriculum subjects, or subjects. In addition, the content may contain concepts, facts, or basic ideas (Sharkey, 2003, p. 90).

**Curriculum:** refers to the total expertise that prepares learners and assists them towards full and exhaustive development to better adapt to themselves and others. It comprises a given subject required for graduation in any particular major field, such

as the subjects taught in mathematics or sociology. Curriculum may also be defined as any activity offered and organized by the school, whether inside or outside the school (Saker & Kerfes, 2014).

**Institutes of Physical Education:** are educational institutions preparing individuals by focusing on physical and emotional aspects and knowledge to work later as an instructor of the subject of Physical Education. Students are admitted to these institutions after passing 9th Grade and several physical and medical test. The duration of the study in these institutions is 5 years.

**Educational Objective:** An educational objective may be defined as a positive behavior expected to be acquired by students due to interacting with their educational environments. It is derived from the pedagogic objective. The instructor may achieve such an educational goal within a given period (from 1 month to a semester or an entire year). Mosston and Ashworth (1986) define it as an accurate expression of the expected change in students' personalities after passing an outstanding educational experience. Educational objectives are centered on three main areas: Knowledge, emotion, and mobility.

**Knowledge objective:** are the planned learning objectives or goals of the learning element that are specified and organized in terms of the major focus of each objective or goal. The instructor is encouraged to establish Experiential, Conceptual, Analytical, and Applied objectives (Barto, Jawad, Shaalan, & Toxicology, 2021; Ekiz-Kiran, Boz, Oztay, & Practice, 2021). The learning activities—Knowledge Processes, which they precede and mirror—and the knowledge outcomes intended to demonstrate attainment of the knowledge objectives should be intimately linked. Addressing the Knowledge Objectives in detail demonstrates that the instructor is up front and open about their purpose. The knowledge objectives guide the remaining design steps; if an activity or knowledge process does not support or permit the achievement of an objective, the instructor is prompted to question its need (Barto et al., 2021; Ekiz-Kiran et al., 2021).

**Psycho-kinetic objective:** A hypothesized psychic power that allows a person to affect any physical system without coming into contact with it physically (Esposito, Ceruso, D'Elia, & Sport, 2019; Neagu & Sport, 2013). Psychokinetic is a discipline that infers what conveys together reasoning (psyche) and movement (Kinetics) (Esposito, Ceruso, D'Elia, et al., 2019; Neagu & Sport, 2013). In sports, psychokinetic exercises are intended to train the athlete's capacity to carry out and adjust behavior in

response to external cues (visual, auditory, and tactile) that occur on the field in the smallest amount of time (Esposito, Ceruso, D'Elia, et al., 2019; Neagu & Sport, 2013). **Emotional objective:** One might present a perception of emotional objectivity that will help them establish and maintain excellent connections by understanding that emotions are common and inescapable (Cañabate, Santos, Rodríguez, Serra, & Colomer, 2020; Griban et al., 2019; Trigueros, Aguilar-Parra, López-Liria, Rocamora, & Health, 2019). Communicating direction, control, care, and concern to others is possible by keeping an eye on thoughts and sentiments and rephrasing student conduct in less objectionable ways. Being emotionally aloof from your students doesn't make you cold or uncaring. It involves keeping one's emotions in check and refraining from getting upset when kids act disrespectfully or have outbursts. When instructors act impartially and are in charge, students feel safer and are more likely to form a trusting relationship with their instructor (Cañabate et al., 2020; Griban et al., 2019; Trigueros et al., 2019).

### **1.10 Organization of Thesis**

This thesis consists of **6** chapters. The **1st** chapter introduces the study. The next chapters are organized logically to emphasize the link among group games, physical education assessment of curricula Content and Educational Objectives. The research started with the study's background with specific motivation, problem statement, research objectives, and research questions. Finally, the importance of this study from the academic, industrial, and policymaking perspectives is discussed, followed by the chapter's conclusion.

The **2nd** chapter begins with the literature of the relevant discipline. Based on a comprehensive assessment of the literature and industry statistics insights, research gaps are identified, followed by the construction of a conceptual framework for this study and a complete theoretical explanation of the relationship. This chapter also includes a section on developing hypotheses for empirical testing. Finally, a conclusion was presented.

The **3rd** chapter offers a detailed analysis of the research methods. For this study, a mixed research methodology was considered. This chapter covers the research philosophy and the development of index and scale. Lastly, data collection, sampling methods and data analysis techniques have been discussed in detail.

The **4th** chapter discusses the data analysis and findings with detailed discussions highlighting the basis of the results that will be obtained from this study from qualitative and quantitative perspectives. A brief introduction and study overview are provided in this chapter regarding data analysis. The study objectives will be covered, the research findings will be examined, and a conclusion will be provided.

The **5th** fifth chapter will present the conclusion of the study. A summary of the significant contribution of the study to academic research, industrial uses, and legislators follows the introduction. In addition to, a details discussion of the analysis was illustrated. The limitations of this study were addressed. Finally, pertinent recommendations and suggestions for future work were outlined.

The **6th** chapter is dedicated to the conclusion that briefly presents the overall thesis, including results, methodology, the contribution of the study, and future research work and recommendations.

### **1.11 Conclusion**

This chapter begins with an introduction before moving on to an examination of the context's evolution and revolution. This chapter's purpose is to give information on the study's major research gaps and highlight them to explain the research problem. The study's methodology, terminology and definition are briefly stated. Lastly, the thesis structure and a chapter summary were presented. The next chapter will discuss the literature review of this context with relevant theories and research models.

## **CHAPTER II**

### **Literature Review**

#### **2.1 Introduction**

An overview of the group games that will be the focus of this chapter comes first. The pertinent literature related to the overarching and specific objectives of physical education is next discussed. Next, a concise explanation of the criteria for content selection is provided in this chapter. In this section, we also went into detail about the assessment of physical education and the assessment instruments that go along with it. The field of curriculum theory was chosen to serve as the cornerstone of the conceptual framework, which led to its selection for the theoretical framework. A discussion of the prior research then follows it to come up with the hypothesized relationships to be tested. Afterward, it is then followed by a discussion of the current study. This chapter comes to a close with a summary, which may be found in the concluding section.

#### **2.2 Group Games in Physical Education**

Group-based physical games are a universal part of the life of juniors and teenagers. However, in the last decades, Amani, Koruzhdeh, and Taiyari (2019), For example, enabling sports to be recognized as evolution-based and beneficial in terms of mental development is one of the important changes. Instructors can devise, execute, and conduct educational activities more substantially and authentically using such factors. Physical education games are well-famed and powerful teaching methods for health and physical education (L. Smith et al., 2015). Several games and group activities are considered ideally appropriate for HPE as these are naturally attractive to play and help the students explicitly or implicitly to flourish their physical education knowledge and improve their skills (Allen et al., 2016). Skills such as running, throwing, catching evasion, including (fine motor skills like) balance, teamwork, speed, and swiftness, can be easily learned through health and physical education activities/games (Amani et al., 2019). Instructors integrate the use of group games and activities into their health and physical education curriculum due to some strong reasons as follows:

- Fun games (played within groups) encourage the participation of the whole class.
- Ideal for quick and recurring brain-breaks.



- Several activities are perfectly suitable for developing drill and cardiovascular practices.
- Group games/teamwork activities can help to build up essential social and emotional skills within the group/team if well organized.
- The whole group may have absolute happiness by playing several group games.

Many exercises can be created for individual or group work, including various games and curriculum objectives/goals. Group games aim to enhance various social skills, according to Sohrabi (2019), may be defined as an “individuals’ ability to interact, sustain and establish relationships with others, whereas the individual game is more focused on improving personal abilities. Lack of interpersonal skills (such as communication and collaboration) is considered one of the important factors that may lend a hand to students’ failure in school. Learning is a process of intellectual, social, and emotional development (Bracco, Lodewyk, & Morrison, 2019). Self-awareness, compassion, temper management, healthily controlling one's emotions, self-discipline, coordination, and communication are examples of interpersonal skills (Chinekesh, Kamalian, Eltemasi, Chinekesh, & Alavi, 2014), can be mastered through team building exercises and games. Furthermore, by arranging communication activities, Students can be encouraged to be more expressive and extroverted (Cahill & Fonteyn, 2008). By assisting kids in acquiring essential abilities that they will carry with them throughout the rest of their lives, group games add another dimension to this. Group activities provide children of all ages access to a world of fun & knowledge while also being entertaining. To ensure these group games benefit physical education, curricula Content regarding the assessment aspect should be updated. Games are a more engaging and effective way to learn since participants interact with one another more casually than they would in other learning situations. A game might interconnect the students uniquely than other structured approaches due to its informal nature (Alcalá & Garijo, 2017). Game outcomes are shared obligations of all participants of the team/group, which may create a positive impact on all members by improving communication abilities. Additionally, each group has a unique spirit, so it retains its charm even when the same game is played repeatedly. If instructors use games as a supporting instruction tool with a particular purpose and plan, it may produce positive results (Ahmedhmde, Nashmie, & Ghazi, 2019).

### 2.3 Physical Education

One of the most crucial aspects of education is physical education, which is related to the adjustment of physical activities following the social norms under the guidance of an organization to promote leadership and muscular activities in children. The leadership activities and development or growth are linked with each other, ensuring the smooth running of the educational process (Țifrea, Giosan, & Costache, 2016). It was observed by Casey and Goodyear (2015) that physical education plays a crucial part in the growth of students. These developmental changes occur in psychological, intellectual, social, and emotional spheres of life through a well-organized and disciplined set of activities. The goal of physical education is to give children the knowledge and abilities needed to lead an active, dynamic, and healthy life (Bertills, Granlund, Dahlström, & Augustine, 2018).

- Demonstrate the knowledge and physical skills required to participate in different kinds of physical activities and compliment others performing such kinds of physical activities.
- Enable them to make the right decisions and adopt and maintain a healthy lifestyle throughout their lives.
- Should possess the behavioral traits and social skills that will benefit them in their lives.
- The ability to recognize and understand the various impacts of physical activities on themselves.
- Able to understand how physical fitness benefits their lives and society in general.

The basis for quality The physical education program enables students to enjoy and excel at various physical activities (Robinson, Randall, & Barrett, 2018). They gradually develop various skills and abilities to use tactics, design strategies, and innovative ideas to perform efficiently. During the play, they concentrate on their game and extemporize to decide. They also consider the performance of themselves and others and find ways to improve it. Consequently, they become more confident in participating in various physical activities and learning about healthy and active lifestyles (Winnick & Porretta, 2016). Find out what is the students' preferences, their competencies at the physical education institutes, and how and when to take part in a physical activity, which enables them to make wise choices regarding long-lasting physical activities (Осипов, Воног, Прохорова, & Жавнер, 2016). Physical

education significantly improves students' personal and social skills. They develop a personal and social sense of responsibility and fairness while working alone or in a group. They play various roles and responsibilities, including leadership, coaching, and refereeing. Physical education offers a wide range of experiences through which students learn how to be efficient in competing, innovative, and challenging in different situations (Bessa, Hastie, Araújo, & Mesquita, 2019).

## **2.4 General Objectives of Physical Education**

The learning objectives for psychomotor, cognitive, and affective learning are all concurrently addressed by physical education as a subject area. Despite the acknowledged ability of physical education to support emotional learning goals, they have been poorly defined in the curriculum and frequently ignored in practice (Winnick & Porretta, 2016). Physical education is now expected to more clearly define and illustrate how it contributes to social and emotional learning across the curriculum, nevertheless, due to the increased interest in this topic. Even if the framework may be different, it is simple to integrate social and emotional learning skills like self-awareness, self-management, social awareness, interpersonal skills, and ethical decision-making into effective, student-centered physical education. (Edwards, Bryant, Keegan, Morgan, & Jones, 2017). Children's capacity for learning is enhanced. increases energy expenditure, heart endurance, physical strength, and flexibility; strengthens your strength, agility, quickness of responsiveness, balance, and cooperation while enhancing all of your senses. Physical activity engagement is the vehicle via which efforts are made to achieve these aims, and physical educators incorporate psychological, social, and physical development elements in statements of objectives for educational programs.

### ***2.4.1 Objectives related to the psycho-kinetic side:***

The first scientist to propose the idea of the fundamental principle of psychokinetics was Jean Le Boulch, a well-known French physician (specialist in rehabilitation and the psychomotor sector) who also worked as a basketball and sports coach. He did this in 1966. The psychological and psychokinetic process is now seen as a science of human movement because this new approach has altered how physical education is perceived. The research of movement and reasoning (Psyche) is known as psychokinetic science (Kinetics). Instructors and administrators in physical education

must apply psychokinetic principles to optimize their teaching abilities. Psychokinetic exercises are used in physical education to quickly change students' abilities and behaviors in response to external inputs (visual, auditory, and tactile) that occur in the real scenario or field (Esposito, Ceruso, & D'Elia, 2019). When implementing psychokinetic techniques in physical education, the instructor must select the most practical strategy to give the students access to a real-world setting that will allow them to act appropriately and speed up their response times (Bikos, 2018). The students' abilities will be improved via consistent physical education practice and instruction, and they will use those talents naturally during the game (Angeliki, Dimitrios, Kostas, & Aggelos, 2018). These exercises proved to be very useful and delightful and considerably mitigated the denial behavior of the students. After acquiring some experience, these exercises gradually become more rigorous. Therefore, psychokinetic exercises may improve one's capacity to comprehend the issue, develop attentional skills, interpret or anticipate the scenario, and come up with a quick solution (George & Spyros, 2016). Although a student's innate skills are true and come from their DNA, they may still be developed by frequent training using the appropriate methods (L. Smith et al., 2015). The learners would be more attentive throughout the entire exercise if the psychokinetic exercises were planned at the beginning of the practical-based physical education syllabus and began soon after the warm-up when they were not weary (Bikos, 2018). The psychokinetic activities don't require as much thought and don't cause as much mental strain, so they may be done while getting ready for the games. Amazingly, these workouts can increase quickness and reaction time. Thus, they can be used in the final practice before the game. The student-physical education instructor relationship is the most critical factor in any psychokinetic activity's success (Elia, 2015). The physical education instructors' behavior should be positive; he must draw their attention towards specific matters but not towards the multiple issues; he should not propose or offer any solution but motivate the students to come up with their own solution to the given problem (Felder, 1993). The biggest driver of perseverance in work is passionate behavior, so it is advised to start by presenting straightforward tasks in games and challenges. It progressively reflects the beginning of the road, which is the accumulation of minor daily successes and leads to new goals. Additionally, it makes no conclusions because men have virtually unlimited intellectual potential (Yershova, DeJaeghere, & Mestenhauser, 2000). By integrating the students in activity-based games, practical learning has shown that using these

techniques can focus and alter the students' minds, considerably increasing learning. Getting children involved in play and incorporating learning emphasizes the value of activity-based instruction in physical education (Esposito, Ceruso, & D'Elia, 2019). Attention will be drawn toward contextual diversification strategies to meet diversified participation. The idea of "focusing" or "learning in the game" was introduced as an instrument to accelerate learning through practice and to address the particular aspects of skilled play (Piltz, 2016). According to Piltz (2016), the game sense is "the capability to interpret the rules, strategies, tactics, and one's ability to resolve the problem caused by the game or opponents in the game." Physical education learning improves learners' concentration, particularly regarding the tactical elements of games like attacking or defending tactics. Other methods to "improve" the play and increase player involvement were also demonstrated during the session. Different feedback to the learning context is also included in this improvement, which helps to perpetuate the states during adjustment, adaption, and learning (Țifrea et al., 2016). Physical games are renowned for their unpredictability; circumstances such as ball possession, opponent positioning, and game condition changes rapidly throughout the game. The players must have a high level of cognitive skills due to the games' rapid shifts (Rocamora, González-Víllora, Fernández-Río, & Arias-Palencia, 2019). They must comprehend the game's rules, behave appropriately, recognize the jobs allocated to them, and select an appropriate course of action. According to Barquero-Ruiz, Arias-Estero, and Kirk (2020), learners must pay closer attention, focus on their lessons, and prepare themselves for the game's simultaneous and continuous actions. Applications of psychokinetic exercises include didactic strategies that improve cognitive abilities and improve teamwork among students, instructors, and supervisors. A research study P. Zhang, Zhang, and Lee (2020) stated that psychosocial variables are also important because the only player is both the training's subject and its target.

#### ***2.4.2 Objectives related to the social-emotional side:***

Through social and emotional learning, students must improve their cognitive and social conduct, including essential skills, attitudes, and behaviors. Learning the five main social and emotional competencies, regarded as the success factors, is a prerequisite for students' success in college and life after graduation (Opstoel et al., 2020). The development of these skills is commonly accepted as being crucial for the child's upbringing and prosperity. By strengthening these skills, kids are better

equipped to ask for help, regulate their emotions, and deal with issues correctly. According to Granero-Gallegos, Ruiz-Montero, Baena-Extremera, and Martínez-Molina (2019), emotional learning (SEL) significantly increases students' ability to deal with daily assignments and challenges effectively by integrating their skills, behaviors, and attitudes. Furthermore, an active environment should be the model for developing these talents. Social awareness, relationship management, self-awareness, personal management, and sound decision-making are the five critical social and emotional learning abilities that The Collaborative for Academic, Social, and Emotional Learning (CASEL) has identified. (Walton, Burrus, Anguiano-Carrasco, Way, & Murano, 2019). A research study by Foster, Maynard, Butt, and Hays (2016) indicated that young individuals, on the other hand, could quickly pick up these interpersonal and social abilities through physical education and sports participation. The youthful generation is better prepared to face the demands of daily life thanks to the increased interest in physical education (Champaign, 2014). According to a global assessment of physical education, one of the most significant and frequently cited goals of European physical education programs is personal and social development (EUPEA, 2020). Moreover, a substantial number of researchers (Beni, Fletcher, & Ní Chróinín, 2017; Bessa et al., 2019; Gil-Madrona, Samalot-Rivera, & Kozub, 2016) stated that taking part in sports has been proved to develop personal and social traits. Therefore, it stands to reason that the growth of interpersonal and social skills is commonly accepted as the primary objective of physical education and athletics. Sports and physical education are widely acknowledged as effective methods for helping children improve their interpersonal and self-management abilities and their feeling of teamwork and other social responsibilities (Casey & Goodyear, 2015). Another research study by Shiver, Richards, and Hemphill (2020), explained that due to their widespread usage in many facets of life, physical education and sports are acknowledged as the best means of teaching these abilities. For instance, under the proper educational philosophies, students in physical education and sports can acquire new skills and acquire useful communication skills that they can use in everyday life (Guijarro, MacPhail, González-Víllora, & Arias-Palencia, 2020). Over time, numerous courses have been created to instruct these abilities in physical education or sports. For instance, Hellison suggested a methodology for teaching social responsibility and professionalism (TPSR) (Hellison, 2010), whose primary goal was to help wayward youth reintegrate into society. Which is now being applied in regular physical

education classes (Marques, Corrales, Martins, Catunda, & Sarmento, 2017; João Martins, Marques, Sarmento, & Carreiro da Costa, 2015). Cooperative Learning in Physical Education and Sport Education are additional educational methods that support the development of personal and social skills through physical education (Júlio Martins, Torres, Cardoso, Costa, & Honório, 2015).

### *Social Awareness*

Social-awareness is the capability to recognize and understand the different attributes of individuals and groups while they are interacting with each other. Social-awareness enables the students to understand the social norms, assume the social behavior and feelings of others, and respect and accept the views and opinions of others (Genç & Tunç, 2019).

### *Relationship Skills/Management*

Relationship management is recognized as the competency to manage the relationship appropriately with an individual or group of persons. Relationship management includes excellent communication, collaborative learning behavior, withstanding improper social constraints, preventing conflicts, and providing help when required (Gordon, Jacobs, & Wright, 2016).

### *Self-Awareness*

Self-awareness is related to the competency to comprehend and perceive thoughts and emotions and their possible impacts on their behavior. It includes assessing aspects like strengths and constraints and a potential sense of self-assurance. The strengths and weaknesses of the students affect their academic achievements, their consistency on the assignments, or their behavior towards the academic assignments (Beni et al., 2017).

### *Personal Management*

Self-management concerns the person's effective control over his thoughts, emotions, and behaviors in difficult circumstances. Self-management includes managing consistency, control over aggression and self-destructive behavior, handling stress, and achieving personal and academic objectives. The students' ability to control their

emotions significantly influences their ability to memorize and acquire the knowledge they opted for the academic assignments (Wright, Gordon, & Gray, 2020). Academic autonomy is vital in motivating the students in the classroom and their learning strategies through which they learn the lessons (McKenzie, Sallis, Rosengard, & Ballard, 2016).

### *Responsible Decision Making*

Responsible decision-making is the personal trait of a person related to making decisions based on the moral and ethical grounds of their welfare and others. Responsible decision-making could inspire the students to solve their problems and design strategies for self-evaluation and reflection (Escartí, Llopis-Goig, & Wright, 2018). These skills also enable the students to recognize their problems and solve them by adopting the right academic or social methods (Jones & Green, 2017).

#### ***2.4.3 Objectives related to the knowledge:***

As per Pangrazi and Beighle (2019), physical education helps children learn about physical education and strives to create a favorable image. A well-planned curriculum that enables students to forge a strong connection between knowledge and experience can meet the continually expanding importance of physical education expertise (Ward & Ayvazo, 2016). The understanding of energy balance pertains to the intake and consumption of energy in accordance with the needs of the body. The guiding principles of exercise concern establishing harmony between the necessary physical activity and the goals of the exercise. The theoretical basis of students' physical education theories and actual physical education activities can typically be integrated by these two forms of knowledge. Their research work (Iserbyt, Ward, & Li, 2017; Tinning, 2015) indicated a positive association between energy knowledge, balance knowledge, and physical activity behavior, demonstrating a holistic approach to physical literacy. While putting forward one of the first definitions of Physically Literate Morrison (Jurbala, 2015) asserts that in order to be physically literate, a person must be unique, adaptable, and skilled in objective movement, as well as creative, inventive, clear in expressive movement, competent, efficient in utilitarian movement, and all of the above. Following Morrison several identical definitions of physical education knowledge have been done. For instance, Longmuir et al. (2015) defines PL



as an acquired quality in people that makes them motivated, self-assured, physically competent, knowledgeable, and understanding enough to make purposeful physical endeavors a part of their lifestyle. In other words, a physically literate person may interact with their surroundings by embodying the physical character of movement and using their experiences and knowledge to do so (Lundvall, 2015). Students focus on accepting transmission and application related to the current educational questions. It proves their acceptance of knowledge as a foundation (for competence and performance) and its applications in constantly evolving real life (Lounsbery & McKenzie, 2015). In other words, children who receive physical education can exhibit their skills and knowledge, use their expertise, teamwork abilities, and progressive principles to challenging, quick-paced games and real-world job projects, and take on daring challenges (Lundvall, 2015). Irrespective of their desire or that of the outspoken, enthusiastic, and skilled peers, students who lack education, basic and advanced abilities, or sufficient core strengths are less likely to be able to value involvement in physical activities (N. J. Smith, Monnat, & Lounsbery, 2015). On the other hand, even by participating in haphazardly planned team activities, most pupils in the 21st century frequently pass the Physical Education Curriculum. Selecting physical activities for entertainment or to promote a target is a question mark on the quality of physical education (Ennis, 2015).

Instead of only studying or mimicking past behavior, people might be directed to find new methods to extend, deepen, and apply information to their life (Behzadnia, Mohammadzadeh, & Ahmadi, 2019). In other words, extending the present physical education characterizations by giving students access to skillfulness (to engage effectively) and a level of alertness (for a deep and meaningful experience of the activity), combined with the motivation to seek new educational paths for learners (Ennis, 2015).

The main goal of physical education is to provide students with the knowledge they need to make decisions in difficult situations and to help them understand how knowledge shapes their behavior, traits, literacy, skills, awareness, and comprehension of how to eat for a healthy, active lifestyle and opportunities for physical recreation (Gabbani, 2001). The four main areas of knowledge are as follows:

1. Physical fitness (flexibility, breathing, cardiovascular, muscular strength, and).
2. Physical activity routine (direct assessment of day-to-day activities).
3. Psycho-social/intellectual capabilities (knowledge, behavior, and feelings).

#### 4. Motor behavior (possessing the required motor capabilities).

In this regard, Corbin, Kulinna, and Sibley (2020) determined that knowledge of physical education is the foundation for public health, sport, recreation, and the use of the term "physical education" to achieve better public perceptions.

The knowledge gained in physical education lays the groundwork for developing social, behavioral, and cognitive abilities. It also relates to the fitness that kids ultimately need to fulfill their life goals and to succeed in sports for the rest of their lives (Bailey et al., 2009). Through physical education, learners can understand the four key aspects of mobility: balance, agility, speed, and coordination. Furthermore, students' demands, their participation in sports in various games, and their propensity for recreational activities in various sports are all strongly influenced by their knowledge of physical education. Students can improve their cycling, swimming, leaping, running, and slipping skills in physical education. Sports requiring throwing and holding, like tennis, table tennis, and hockey, require specific equipment for skill development (Lieberman, Grenier, Brian, & Arndt, 2020). At this stage, physical education knowledge emerges as a core material in the physical education curricula and programs, even though it is not described in the current programs. Knowledgeable students tend to possess higher self-confidence as they know their physical capabilities and motor skills. As a result, knowledge must be a key component of physical education curricula and programs.

The contemporary research literature on physical education concluded that the curriculum should include physical education knowledge and essential sports skills. The primary goal of physical education is to increase public awareness of its importance. Understanding physical education knowledge would give an insight into the precise nature of physical education.

### **2.5 Definition of Content**

The content is among the basic components of curricula and is quickly influenced by objectives. As a result, the curriculum should include the content and make clear connections to the goals. Other names for the content include educational content, subjects, curricula, or subject (Taylor, 2015). It is also described as the activities and knowledge chosen and arranged to reach the anticipated goals (Spittle & Spittle, 2016). Physical education materials that include physical activity are an addition to the

material that requires mental activity in a passive space. The concept that intelligence is only used for reading or solving math problems is based on mind-body dualism. Physical education materials have been developed at the bottom of the educational food chain.

## **2.6 Standards for selecting the Content**

Standards are defined as educational goals at the national, state, or district levels that acknowledge the students' abilities, information, and conduct. Likewise, results are defined in terms of students' expectations for engaging in a given program (Leirhaug & MacPhail, 2015). Results-based education is connected to standards-based education if it clarifies the goals that instructors and administrators work to attain (Alismail & McGuire, 2015). Content standards provide guidance and consistency for instruction and evaluation in high-quality physical education programs. The content standards are the criteria for a good program (I. Kim, Lee, Ward, & Li, 2015). The numerous competencies that students are expected to achieve define these requirements. Furthermore, criteria are measurable so that educators, managers, and students may see when advancement has been accomplished (Wright & Walsh, 2015).

### *Standards for Selecting Curriculum Content*

The following points should be considered while the process of content selection:

#### **2.6.1 Validity/effectiveness:**

It is legitimate if the curriculum content supports the final result per the learning outcomes or objectives. The legitimacy of the chosen topic and information is also important to ensure that the themes are current. A system of checks and balances on the curriculum's content is necessary for this, and it is also necessary to have flexibility in replacement and change (Lyyra, Leskinen, & Heikinaro-Johansson, 2015).

#### **2.6.2 Self-sufficiency**

This selection criterion helps the learners to attain self-reliance economically. This can be done by giving them a chance to the learners to experience so that they can observe and carry out field studies (Eraslan & Dunn, 2015).

#### **2.6.3 Significance**

If the data is selected and arranged to promote learning activities, knowledge, procedures, and a helpful attitude, it may be significant (for resolving the issue facing

the state or country). Affective/meaningful, cognitive, and psychomotor abilities are also developed, and cultural aspects are given special consideration. As a result, if the students come from different cultural backgrounds, the curricular material should also be culturally responsive (Kelly, 2019).

#### ***2.6.4 Interest***

In order to create a learner-centered curriculum, this criterion must be met. Students' interests should be considered during content selection because learning may be remarkable if the content is meaningful. There is a relationship between learners' interests and the significance of the content. If the curriculum is subject-centered, instructors are forced to complete the assignments on time every time and impart bookish information. This explains why some subjects have the highest failure rate (Barnett et al., 2019; Kelly, 2019).

#### ***2.6.5 Learnability***

The content should be according to the ability of students to learn and practicable for students as well. Instructors must therefore use ideas on the psychology of learning to comprehend how subjects are presented, ordered, and structured in order to optimize students' learning potential (Allen, Gura, & Hornik, 2016).

#### ***2.6.5 Utility***

This aspect concerns the content's usefulness in solving present and future problems. As a result, it is crucial in physical or skill-based tasks. As a result, knowledge is what students may apply and gain while engaging in activities (Bikos, 2018).

#### ***2.6.6 Consistency with Social Realities***

Consistency means that the material must be chosen because it must be relevant to our contemporary political, social, and economic circumstances. Furthermore, for the community it is being built for, satisfaction must be compatible with its culture and beliefs (Gordon et al., 2016). A standard-based curriculum may constitute a significant paradigm change for many instructors and supervisors working in the field today (Pangrazi & Beighle, 2019). In the past, a physical education program's curriculum was developed to incorporate a variety of activities, with the activity selection influencing the design of the material. The emphasis was on the kids' ability to learn these sports or hobbies. To put it another way, instructors and managers taught students the abilities they needed to play volleyball, soccer, tennis, dance, or swim, with the

sole intention that they would participate or engage in the activity (Tifrea et al., 2016). Activities that are often gender-specific (for example, wrestling for boys and dance for girls) or popular in a particular area were chosen (for example, ice hockey was common in Minnesota physical education programs). Supervisors and instructors were skilled athletes in the sport or activity. It has long been customary to include some sports, and to do otherwise was virtually considered heresy (e.g., basketball). After that might new sports or activities be added to the curriculum. If not, activities are stopped for various reasons (e.g., trampoline units were eliminated mostly due to obligations). The creation of standards-based material begins with the observation of existing standards, identifying existing knowledge, and demonstrating existing abilities by students. After choosing a content model and activities, the students will then achieve the desired results according to the requirements (Michael, Webster, Patterson, Laguna, & Sherman, 2016). The first step in developing a standards-based curriculum is to observe the standards, knowledge, and abilities that students must demonstrate in physical education to satisfy those criteria (Hernani, 2017). The students will achieve the intended results according to standards by choosing a content model and activities. Such material requires carefully selecting exercises with enough time for task completion and learner proficiency. Fewer sports activities are being chosen in the standard-based program, but instructional units are typically extended for longer durations. It is based on the students' proficiency in a small number of activities and represents the idea that "less is more." Additionally, it is hoped that after training with one activity, students could apply what they learn to other activities that share some of the same qualities (Otero-Saborido, Vázquez-Ramos, Cenizo-Benjumea, & González-Jurado, 2020). A standards-based content is intricate, and creating and implementing one requires careful planning. The fundamental steps when creating standards-based content are defining specific objectives for the physical education curriculum and constructing assessment criteria. Different curricular frameworks that offer fascinating lenses for developing a program can be adopted (McLoughlin et al., 2019). Programs for physical education can be engaging and offer kids possibilities to learn that are difficult. They also benefit the participants' health and make it easier for them to finish the program. Although some people oppose the standards movement, it is seen as a chance to rethink the curricula for physical education. Building it is the first step in creating a high-quality physical education program and a channel for educational renewal (Eraslan & Dunn, 2015).

## 2.7 Definition of Assessment

Assessment significantly enhances the curriculum process (Rodríguez-Negro & Isasti, 2016) and aids in achieving the required results. However, although assessment means to increase the educational process, on the other hand, evaluation is considered the most difficult task in education, as well as in physical education (Rodríguez-Negro & Isasti, 2016). The correlation between curriculum, instruction, and assessment is where assessment and evaluation first emerged (Price, Pierson, & Light, 2011). When developing the learning objectives of educational programming and ultimate objectives, students' capacity to synthesize and apply their knowledge must be considered. As a result, diagnostic and formative tests are used by instructors, managers, and students to obtain information. Diagnostic testing identifies students' past understanding of a subject and aids instructors and managers in planning programs appropriately. In addition, assessment is very important in Physical education to evaluate performance; for this purpose, a physical test is conducted to assess the students (Pastor, 2011). The evaluation was a rigorous feedback procedure acknowledged as more than just testing after a unit. It is an ongoing, recurring, valuable practicing and drilling process (López-Pastor, Kirk, Lorente-Catalán, MacPhail, & Macdonald, 2013). Piaget emphasized the identification of main errors, analyzing the causes, and guiding the students to overcome the deficiencies. Physical education assessments should be used to pinpoint performance barriers, but they must be founded on attainable objectives. For instance, the assessment must be centered on gameplay rather than results if the instructors' objectives for the students are to play well (Björn Tolgfors, 2018). Michael Scriven was the first to use formative and summative evaluation (Stake, 1967). Later, Bloom (1968) brought the terms into the Education field to improve teaching-learning. The Ontario Ministry of Education eventually implemented a new language for empirical research (Byram, 2008). Diagnostic assessments, Formative assessments, and Summative evaluations have also been known as “Assessments for Learning”, “Assessment as learning,” and “Assessments of Learning,” respectively. Moreover, Formative assessment, its subsequent self-regulating goals, and formal feedback linkages frame the present research. In addition to relevant and informative feedback, instructors and supervisors have factual data about students' time-tested development. For better development of self-regulation in students, it is needed that instructors and supervisors keep on reviewing and reflecting

on the data (Huisman, 2018). Based on the previous study's findings, the Feedback in Physical Education (FPE) Tool was developed for the current investigation (Black & Wiliam, 2010). The program produces empirical data that instructors and managers can use to give their students formative and summative feedback. Evidence of this kind also aids in ongoing goal-setting and might boost self-motivation, ultimately enhancing self-regulation. Every educational process, including the curriculum, includes the assessment. It is designed to gauge to what extent the predetermined objectives have been achieved (Tay, 2015).

## **2.8 Assessment in Physical Education**

In circumstances including physical education, assessment is recognized as a crucial element of the teaching and learning cycle (Barquero-Ruiz et al., 2020). Students, parents, coworkers, and other members of society can be educated about the suitability and competency of an educational program or unit of work by using it as a measure of accountability in physical education (López-Pastor et al., 2013). (Price et al., 2011) focuses on the interrelationship between assessment, curriculum, and pedagogy, wherein assessment and analysis of students' learning rate and level can assist in improving future teaching for students' positive learning experiences (Bjorn Tolgfors & Öhman, 2016). As a result, assessment aids instructors and managers in tailoring training to the desired learning outcomes of students (Dudley, Goodyear, & Baxter, 2016). Lorente-Catalán and Kirk (2016) claimed that the learner-centered assessment procedure should be emphasized because it can give a thorough picture of the student. Students' motivation to study can be increased by implementing assessment procedures that make learning more difficult but enjoyable. (Leirhaug & Annerstedt, 2016). As per the opinion of Michael et al. (2016), students' understanding of learning outcomes and areas where improvement is required grows as a result of the evaluation. They stress how crucial student input towards the development of assessments is. It might result in an advantageous and beneficial experience. Most people agree that assessments are data used to evaluate pupils' work. Exercise Education Students who actively participate in class receive fast feedback. Furthermore, due to fast judgment, direct observation may result in and give results. The problem occurs while defining success. The majority of the younger participants focus more on product than process goals. This may decrease participants' self-motivation levels and ultimately make them incapable. Intelligent adults must participate in the assessment and evaluation

process to help young people put their instant comments into a positive perspective (Scanlon, MacPhail, & Calderón, 2019). So for Physical Education is an important curriculum area of content, best practices, including formal and on-the-spot feedback, must be followed by the assessment procedures (Cirillo, Nughes, Acanfora, Altavilla, & D'Isanto, 2016). Physical educators need the same pedagogical development as other academic disciplines so that their relevance with policymakers may be maintained along with proper allocations of funds. Results must be measurable that may be documented as well. Research is also needed to improve physical literacy, skills, and academic standards. Furthermore, assessment and evaluation programs designed for Physical Education must establish standards (learning goals) that may strengthen the process of skill learning and effort (Potdevin et al., 2018). According to the research, if instructors and administrators concentrate on coordinating assessment and evaluation techniques in physical education with standards, it will aid students in learning new skills. According to Kilborn, Lorusso, and Francis (2016), if the skill is not learned, adolescents fear failure and stop participating in physical activity, which lowers participation rates overall. It also exhibits the importance of formalized evaluation and assessment processes in Physical Education. The main goal of physical education programs must be to create lifetime active people with high levels of self-motivation regarding their physical prowess. This could result in a stronger commitment to active, healthy lifestyles. These findings strongly advised Physical Education to improve its educational effectiveness (Michael et al., 2016).

## **2.9 The concept of assessment**

It describes the entire processes designed to gather data and information that allow assessments of the suitability of a certain curriculum through the use of tools and devices to analyze this data (Michael et al., 2016). Any evaluation that prioritizes advancing students' learning in its design and implementation is an assessment for learning. This differentiates it from assessments primarily used to establish responsibility, rank, or certify competence (Black et al., 2002, in the preface).

In their research, Chan, Hay, and Tinning (2011) claimed that evaluation impacts the results of the teaching and learning process, a phenomenon is known as a "backwash effect." As a result, the various assessment methods have varying effects on how instructors, managers, students, and the qualities of the subject matter develop their subjectivity. Following European research trends, these results might be understood as



didactics, emphasizing the triangle-shaped link between instructors and supervisors, students, and the subject matter. The didactic triangle typically explains this relationship (Hudson & Meyer, 2011). According to Björn Tolgfors (2018), Assessment can be categorized as a "self-organized learning model" since practical educational approaches are founded on "what works" in teaching methodologies and practices. Assessment should be a part of the teaching and learning process because it calls for tailoring the education to the needs of the pupils. It can be obtained by implementing various evaluation strategies to improve the students' capacity for learning through peer and self-assessment.

## **2.10 Types of assessment**

### ***2.10.1 Diagnostic assessment***

It is the first assessment type, also called "assessment for learning". Students can use it as they prepare to master a new skill. The instructors can use diagnostic testing to determine which abilities the children already have and which ones need work. This evaluation is not used to determine grades for report cards. All students bring their prior experiences, skills, and knowledge to school, and they make use of these assets as they learn new material. Therefore, instructors need to be aware of pupils' prior abilities. For pupils whose instructors are from various cultures, it is extremely helpful. Because of this, students from diverse social groups have various knowledge, abilities, and experiences, which helps them learn new things and acquire new knowledge. If an instructor is aware of the background of the pupils, they may build tactics that engage and increase learning, identify appropriate resources and contexts, and prepare effective teaching techniques. The student's prior knowledge affects the teaching and learning strategies used.

### ***2.10.2 Summative assessment***

Summative evaluation is the process of evaluating learning. It serves as a summary of the material covered and is frequently graded. The most crucial argument is that, in comparison to formative evaluation, summative assessment requires greater care. If not, it could negatively impact students' performance and, rather than serving as a tool, act as a hurdle for instructors and administrators or a burden for students (Dixson & Worrell, 2016). The achievement is "summed up" through summative evaluation. Usually, it is completed after a formal study course (a final exam in anatomy that

covers the full cumulative course could be given at the end of the semester.). Summative evaluations measure ultimate achievement and are typically significant in the grading system. Student feedback may be an element of the summative assessment (Kibble, 2017). Summative assessments are utilized frequently for grading and score reporting since they summarize what has been learned. However, it's frequently maintained that when applied improperly, summative evaluation has a much smaller impact on students than formative evaluation. Summative Assessment must consequently be used to influence the learner; otherwise, it's worth will turn into a burden rather than a help (Dolin, Black, Harlen, & Tiberghien, 2018). Pre- and post-assessment procedures are the keys to making the summative assessment more useful and effective. Through this strategy, progress may be measured for each student in the group (Turner, Pearson, George, & Andersen, 2018). Summative evaluations in the beginning also help instructors and supervisors choose the appropriate contest level for each group of students and allow them to advance. It will then be possible for you as a instructors and, more significantly, the students to see how much development they have made in their learning over time by using summative assessment once more at the end (Harrison, Könings, Schuwirth, Wass, & van der Vleuten, 2015). Instructors and supervisors can supervise and report students' progress in physical education with the help of summative assessments. A common example is the use of a skill development card. Students' progress in volleyball skills can be recorded during the first ten minutes of every class (Broadbent, Panadero, & Boud, 2018). Another characteristic of summative assessment is its connection with daily instructional tasks. (Houston & Thompson, 2017)suggests that "to design a summative test, we must be clear about the expected performance excellence of student." Instructors and supervisors can encourage self-evaluation in their students by using regular progress charts. For instance, students honing their fundamentals can keep track of how many out of 10 exact targets they hit. Written records can be kept, for example, a master score sheet for a tournament activity's scorecard (Brown, Andrade, & Chen, 2015) as a regular weekly event or as part of sports skill practice. Record-keeping forms are private and may only be understood by the person who creates them. Thus, individuals, the team captain, the instructors, or a peer partner can keep them. Consequently, the key is to use a method that instructors, managers, and students can all grasp (Gemming, Utter, & Mhurchu, 2015). The instructors may "see the skill" being evaluated, and skills are tied to real-life circumstances, a particular aspect of

summative assessment and a helpful learning indicator. Only if the instructors is sure in the dependability and accuracy of the assessment data can they be utilized for grading (Koelmans et al., 2019). The capacity to play games is included in this data, which can be utilized as an addition to summative skill assessments. Additional information may be gathered, including basketball shooting percentages, softball batting averages, volleyball serving percentages, and daily archery scores. Students can be taught to record the information with ease, tying physical education lessons to practical math issues (Lai & Schildkamp, 2016).

The final characteristic of authentic evaluation is that it keeps track of student skill development and enthusiastic, active involvement. This trait allows children to continue working independently on the assignment assigned by the instructors. On the other hand, when a task is assigned using any other evaluation instrument, pupils must be rigorously observed for performance and engagement (Bradbury & Roberts-Holmes, 2017).

### ***2.10.3 Formative Assessment***

A physical education unit regularly uses the formative assessment, sometimes known as "assessment as learning." Its goal is to evaluate the pupils' growth in learning during the unit (Krause, O'Neil, & Dauenhauer, 2017). This type of evaluation helps instructors and administrators design an inclusive curriculum that meets the requirements of all students throughout the unit (Van der Kleij, Vermeulen, Schildkamp, & Eggen, 2015). All activities conducted by instructors, managers, and/or students that produce data that often-included feedback to alter the teaching and learning processes are referred to as formative assessment. This is also the case when the knowledge is used to alter the instruction to better suit the needs of the students. All educational activities that offer data to be utilized as feedback, which may be useful to improve the teaching and learning activities to match the requirements of students, are considered formative assessments (Wylie & Lyon, 2015). Put another way; assessment is formative if it prompts instructors and administrators to make decisions about the next stage of instruction and learners to make decisions about learning based on facts about students' performance. So, formative assessment's main goal is to enhance learning, usually through feedback. As per (Grob, Holmeier, & Labudde, 2017), formative assessment serves in two ways: (1) for educators and managers to assess and alter their instruction and (2) to track and enhance students' learning

progress. Its primary goal is to inform instructors and administrators about their students' progress.

Information may provide ongoing feedback about progress leading towards learning outcomes/goals. An important aspect of feedback is the subsequent change in teaching strategies, making formative assessment a powerful teaching tool (Moss & Brookhart, 2019). The primary objective of formative assessment is to provide students with insightful feedback on their areas of strength and weakness in relation to the learning objectives. For students to understand what they have already learned and what material requires further study, traditional formative assessment is conducted throughout the study (or, for the instructor, needs more teaching) (Bhagat, Liou, Michael Spector, & Chang, 2019). Multiple studies approve formative assessment in physical education as the best tool for instruction and planning for instructors and supervisors (Leirhaug, MacPhail, & Annerstedt, 2016; Shirley & Irving, 2015). Ní Chróinín and Cosgrave (2013) researched five instructors and administrators who used formative assessment as a teaching tool for physical education were the subject of a study. They prepared and delivered a series of classes using this method. They chose written or verbal evaluation techniques, such as instructors-led, peer-peer, and self-assessment techniques, that aligned with the course's objectives and looked at various facets of the students' learning for each lesson. Incorporating the assessment into planning, teaching, and learning processes gave instructors, supervisors, and learners a framework that was more effective for all three. So it was concluded that using assessment strategies in physical education might enhance the quality of teaching and learning. (van der Mars, McNamee, & Timken, 2018) also studied the effect of formative assessment on instructors' and supervisors 'instruction and students 'learning. According to instructors and administrators, better planning makes it simpler to administer lessons, which frees them up to direct students toward the lesson's intended outcomes. The learning-task assessment approach also enhanced instructors' and supervisors' motivation and energy levels (L. Zhang & Zheng, 2018). Additionally, it was seen that teaching standards, student learning, and assessment in physical education sessions were all significantly improved. Greater instruction and planning result in better learning results. Using formative evaluation in physical education can improve the caliber of instruction and student learning (Metzler, 2017; Winnick & Porretta, 2016). In Winnick and Porretta (2016) study, Students said they were paying more attention to what they were studying and were participating more.

They added that the lessons helped them to participate more and pique their curiosity. Additionally, students' skill performance improved (Casey, Goodyear, & Armour, 2017). But the outcomes of these tests do not translate into grades on a report card (Sun, Li, & Shen, 2017). While formative assessment is advertised as monitoring learning, feedback is its primary goal. Through assessment, instructors and administrators can determine if students are learning and get the data they need to create future lesson plans to help them reach their objectives (Kelly, 2019). In addition, assessment allows instructors to track students' progress toward meeting national standards by analyzing their performance over time (Palao, Hastie, Cruz, & Ortega, 2015). Therefore, assessment is likely to be conducted regularly throughout the academic calendar. Accordingly, assessment is an essential instrument for instructors and supervisors to use to incorporate quick learning methods and skills into group training (Powell, 2015). Assessment is a primary element in teaching and learning; therefore, it has been regularly and deliberately considered due to its formative function. For instance, (Moy, Renshaw, & Davids, 2016), in his research work identified that assessment is such an effective method that it significantly enhances the student's learning abilities in the general educational environment. Furthermore, according to (Hollis et al., 2016), the assessment gives instructors and supervisors the information they need to make quick decisions about grouping and incentives for the best learning environment.

## **2.11 Objectives of assessment in physical education**

In physical education, the assessment has the following objectives:

### ***2.11.1 Diagnosis***

To establish possible cognitive, emotional, health, perceptual, and social factors, diagnosis is the physical education assessment of students that may influence their academic achievement and school modification. Generally, such an assessment is conducted by a physiologist using various measuring tools and data collection methods to establish a full profile, which can then be drafted in a physiological report. Based on this report, decision-making about physical education positioning and therapy provision can be done (Khujomov & Mirzanov, 2020). Diagnosis assesses the students' physical education knowledge to constitute possible emotional, cognitive, health, perceptual and other factors that may influence their educational

accomplishments and school adjustments. Usually, a physical education specialist (physiologist) assesses by using a variety of assessment tools and data collection methods to create a complete file that can establish a physiological report based on these conclusions about physical education and the provisions of therapy, etc. (Maksymchuk, Sitovskyi, Savchuk, Maksymchuk, Frytsiuk, Matviichuk, Demchenko, Babii, Tsymbal-Slatvinska, & Nikitenko, 2018).

### ***2.11.2 Summation***

In order to create the ideal moment, force is a result of the sequential movement of several body components that makes up the summation (Sandercock & Maas, 2009). Theoretically, force summation occurs when all body components move at the same time. The strongest and lowest sections of the body, which are closest to the center of gravity, actually move ahead of the slower, lighter, and weaker extremities. In the Summation assessment, the timing of the body segments is in order or whether the throw is coordinated with the generated is accurate. This assessment includes timing, throwing, and pushing motions (Koehler et al., 2010).

### ***2.11.3 Categorization***

Ignorance of students' right to participate in physical education can significantly impact the student's emotional and physical development. Physical education also plays a critical part in developing healthy bodies and minds, which requires a thorough understanding. Physical activity limitations that are not essential can impede a student's growth and ability to fit in with the group. Careful classification must consider several fundamental factors, such as health examination findings, functional tests, physical skills and competences, interests, attitudes, concerns, and prior experience in physical education (Tilga, Hein, & Koka, 2017). These factors are all significant and deserving of your attention. However, because it deals with classification methods, this study focuses on the medical examination results. Proper classification by the physician is essential for the knowledge of program content. The institute is responsible for enlightening the physician about the various program activities. Conversely, the physician is obligated to encourage the institute to set up programs that meet pupils' individual needs. Conversely, the physician is obligated to encourage the institute to set up programs that meet pupils' needs (Tilga et al., 2017).

### ***2.11.4 Forecasting***

A systematic assessment of future conditions based on current facts is known as forecasting. Primarily we should collect all kinds of information about the current system, its available and expected resources, and then try to prepare a layout to be acceptable under particular circumstances (Pangrazi & Beighle, 2019).

Individuals with high scores want to know the chances of achievement up to an outstanding level. And the learners who perform poorly want to know how long it will take them to perform at least averagely so they can leave the "dub" class. The typical person, in contrast, might not be as impressed by either person at the highest levels of performance and might not be as intrigued by prospects as the other two levels. But many average-scoring individuals may like to develop more than ordinary skills for some of their favorite activities. These students might be curious about the likelihood of their hope materializing, which can be predicted using contemporary statistical approaches and prediction techniques (Williamson, 2015).

Using methodologies that demonstrate practical outcomes, such as those created by physical education programs, significant improvement has been achieved in other educational sectors. The multiple regression formula is the foundation of one of the prediction techniques. The main benefit of this method is that it not only forecasts each person's "most probable score" but also illustrates the "probable and conceivable variations." It would be simpler to anticipate using general averages or scaled classifications, but these methods entail generalizations that do not account for individual variances in improvement rates (Pangrazi & Beighle, 2019). On the other hand, the regression equation method has the distinct advantage of using likely estimating mistakes, specifically giving changes in the improbability of individuals that may frequently result from special interests or outside influences (Zhamardiy, Griban, & Shkola, 2020). Cognitive teaching and content from physical education are used to build the knowledge, habits, and motor skills needed for physical activity and fitness (Bores-García, Hortigüela-Alcalá, Fernandez-Rio, González-Calvo, & Barba-Martín, 2021; Chng & Lund, 2018; Varea, González-Calvo, & García-Monge, 2022). Regularly promoting physical education in the classroom can assist children in gaining the knowledge and confidence necessary to sustain their level of physical activity through their life. It improves students' ability to learn; it raises body consumption; muscular strength; flexibility; and cardiovascular endurance; it improves all of the

senses, and it improves your strength; agility; response time; balance; speed; and coordination. Additionally, it improves the pupils' skills (Opstoel et al., 2020; Quennerstedt, 2019; Vasconcellos et al., 2020).

#### ***2.11.5 Serving the objectives of research methodologies***

The Assessment is a tool to help one understand the steps needed for qualitative research methods. Following this process can learn what one needs to know and what to change to improve performance or product (Castejon Oliva, Santos Pastor, & Palacios Picos, 2015). Physical education assessment help to improve the research methods in collecting and analyzing the students' performance. The final step for methodology is to assess and provide the report. The assessment report documents the evidence collected and discusses how it shares with each attribute or criterion. An assessment report also provides feedback about how the assessment can enhance future performance (Ní Chróinín & Cosgrave, 2013).

#### **2.12 Assessment tools in physical education**

There are two main aspects of any physical education environment, but the activity should be assessed first. This may or not be a sporting enterprise but may also bear on daily activities (Thanh, 2020). The activity must be assessed for the special needs of the environment. These include energy needs, time duration, actions, and physical contact with others. This information is worthwhile to determine program directions based on the individual or group's needs (Cirillo et al., 2016). The second aspect is the individual (maybe a student of PE) or athlete. The learner must be assessed for muscle power, speed, balance, promptness, the body's flexibility, cardiac and respiratory levels, and insight (King et al., 2020). Once the activity and the learner have been assessed, evaluation can determine correspondence and needs differences. This is the core of the whole evaluation; cross-match of both (individual and activity) needs. A lack of clear understanding of either may lead to no progress toward a goal. A factual consideration is mandatory to know where we are before doing anything new else may be detracted. This is for both the instructors and the learner (Metzler, 2017).



### ***2.12.1 Tests***

A "test" is a specific evaluation used to determine whether certain learning objectives have been met. A test is a particular evaluation technique intended to quantify and induce a particular cognitive behavior (Lund & Kirk, 2019). The test typically recommends a non-cognitive evaluation, like a psychological inventory. In addition, the exam is frequently used to denote a cognitive evaluation, such as a gross anatomy accomplishment test (Kristén, Klingvall, & Ring, 2019).

In physical education, Test and Measurement are the devices needed to collect details about a sportsperson's needs, abilities and attitudes. The test is a navigational presentation through which specific responses from the subject are screened. In physical education and sports, Test and Measurement helps collect data which further helps evaluate the learner's ability (Griban, Yahupov, et al., 2020). It also helps a person to enrich his performance as a sportsman. The questions and exercises assess a certain capacity, attribute, or ability criterion. According to this concept, a phase may be useful for diagnostic and predicative purposes in one scenario but not in another. Furthermore, some phase functions have valuable degrees of application (Yarmak et al., 2017). This concept has been encouraged by the development of statistics as a research methodology. Only statistical techniques can guarantee the absolute values of test items. In conclusion, a phase in the test design process should include the most recent objectively superior tests (of strength, nutrition, and cardiovascular-respiratory function) and validity evidence (Hollis et al., 2017). The tests are questions, exercises, and problems designed to assess the participant's knowledge, skills, preparation, and efficiency (Filenko, Ashanin, Basenko, & Petrenko, 2017). In physical education, assessment is considered the instrument that measures the sensory dynamical behavior, and changes in emotional and cognitive levels in the students. The test assists in setting goals and objectives according to the needs and requirements (Kaszuba et al., 2017). The physical education instructors can get the exact idea of the student's performance by adopting the proper assessment techniques. In physical education, test plays a vital role in data collection, which further facilitates the evaluation process of the learners (Leirhaug & Annerstedt, 2016). The scientific techniques and measurements considerably help in assessing the precise needs and requirements of the students; it helps to identify the weak points which require more attention (Zhamardiy, Shkola, et al., 2020).

### ***2.12.2 Observation***

Observation is an efficient way to obtain factual information about actual events (McCall, 1984). A skilled individual "follows instructions and procedures offered to observe, record, and analyze interactions" in this process (Darst, 1989). To validate the observations' results, it is required that some other experienced personnel must affirm the recorded ratings. Since the 1970s, observation has been used to investigate coaches' behavior and communication techniques in physical education in a variety of ways due to their increasing fame (Cushion, Harvey, Muir, & Nelson, 2012; Darst, 1989; R. E. Smith, Smoll, & Cumming, 2007). Systematic observational techniques describe the interactions between students and instructors in the classroom or on the playground. These tools have replaced, or at least promoted, instructors and student behaviors such as eye movement, story recording, classifying scales, and other traditional data collection forms on checklists. The conventional methods of observation and review have been scrutinized for various reasons. They are not more reasonable and less reliable, particularly because "the opinions are based on the personal prejudice and experiences of the observer (Akyol, BAYRAM, BAYRAKTAR, & TOZOGLU, 2016). The application of systematic observation in physical education as a research tool has become very famous in the 1970s. It instantly came into the eyes of many researchers and was frequently used; moreover, systematic observation has also become a common factor in the training of pre-service physical education instructors and supervisors (Fairclough, Weaver, Johnson, & Rawlinson, 2018). The instructor may use a checklist, a performance rubric, or other tools to record the evaluation outcomes conducted through instructors observation (Akyol et al., 2016). Students can take action on their learning and make decisions using assessment records. Thus, a scenario instructors observation is done without any documentation was not assessed, and students could not evaluate their performance (Ntoumanis, Qusted, Reeve, & Cheon, 2018). On the other hand, observation offers the chance to keep an eye on (a procedure or scenario) and record the proof (of what is seen and heard). As part of the teaching process, observation aids instructors and managers in better understanding the teaching-learning process. It has also been shown that unmasking these tools can improve teaching as an effective instrument in describing classroom behavior fairly (Ortega-Toro, García-Angulo, Giménez-Egido, García-Angulo, & Palao, 2019). Physical education instructors and supervisors use

observation for their assessment because teaching or coaching requires constant observation. However, as the students move to other classes and become older, it becomes necessary to keep their records in written form for further evaluation (Griban, Kobernyk, Shkola, Dikhtiarenko, & Mychka, 2020). This decision significantly improves the approach to formative assessment and becomes the center of the thinking process and skill development, which, according to learning abilities, considerably influence the learning process. The application of observation increases the knowledge and experience of the instructors and supervisors, who then apply it to the diverse learning methods of the students in the classroom (McKenzie & Van Der Mars, 2015). Using observational assessment in combination with the data (academic, statistical, behavioral) examination and student artwork (e.g. work samples, photographs, videos) enables us to assess information and ensure the accuracy and validity of our assessment procedure. Furthermore, it leads us to the origin of thinking (to know about learning which evolves the entire experience). It builds plans to keep the learning process towards achieving learning goals (Hollis et al., 2016). While using observation as a technique for evaluation, the instructors and supervisors must be clear about the learning goals (standards, outcomes) and individual targets for practice and development to take us toward proficiency (Wahl-Alexander & Morehead, 2020). By adopting such a technique, instructors can be focused on both the timeline and framework of observations. They should be obvious about what proficiency (seems and resembles), behavior, skills, and knowledge indicate development. With the help of this information, we can captivate learning “significance” and measure the degree to approach the goal (Dudley, 2015). Observation may be productive if it arises as to the framework of a complex learning occurrence. While solving rich problems, students apply their knowledge and engage in creative processes, and the conditions mature for abundant observation (Jung & Choi, 2016). In such circumstances, students may usually be engaged. This allows us to withdraw and record our learning (by sitting back) through concentrated observation (Hollis et al., 2016). Some major practices indicated that Observations and learning are in the same vein to fulfill the students' needs. The following key points must keep into consideration during the observational assessment.

- Primarily describe the real event/occurrences without analysis or judgment (secondary steps). Record linguistics and actions to indicate learning as precisely as possible.

- Record the student's name, date, and experience of learning context.
- Keep a copy of your available learning targets, including proficiency criteria. It will be needed while analyzing the observations and decision-making concerning instructions and feedback.
- Give some time to yourself for regular observation, specifically on learning objectives that may submit a dare for learners. Your observations might produce or breach learning success in instant and following tasks.
- Enables yourself to take pride while seeing learning expansion and success. Share your pride with your students. Brief them about what you are observing so that proficiency may be indicated. This pleasure of assessment leads to students' confidence, expectations, and stake.

The assessment and observation of the students are related to their perspectives, approaches, and actions (Ortega-Toro et al., 2019). Physical education instructors and supervisors observe the learning process and encourage them to make decisions confidently during a challenging time. Efficient observation enables the instructors and supervisors to amend the students' actions to meet the challenge and give them timely and appropriate feedback. Observation is a tool of assessment that enhances pedagogical agility and student investment, affecting success in meaningful ways (Ntoumanis et al., 2018). Observation is an influential tool of assessment that provides instructors' perception of the processes that the learners may implement while engaged in learning experiences. Using empirical data allows instructors and learners to influence learning and intercede in timely and targeted ways. We need to use every available assessment tool, including observation, to advance learning when it matters most (Hollis et al., 2016).

**Table 1** *Previous studies done on the subject*

<b>Author</b>	<b>Tools analysed</b>	<b>Methodology</b>	<b>Findings</b>
Aarskog (2021)	Interviews, Observations	Qualitative	<ul style="list-style-type: none"> <li>• Teachers employ tactics to incorporate students in the evaluation procedures; they demonstrate that students participate in the evaluation processes, which take place in many ways.</li> <li>• The results suggest that since students are already active in evaluation, instructors and supervisors do not need to include them. For students to be engaged and guided to use more reflective evaluation procedures, instructors and supervisors need to use more reflective feedback. Instead of only involving the kids in the assessment, they must educate them how to evaluate critically.</li> </ul>
Otero-Saborido et al. (2020)	government and non-government reports, international and domestic publications published in scholarly and professional magazines, secondary source materials,	qualitative	The social and economic growth of each of the countries considered, as well as the infrastructure made available to institutes, are further factors contributing to the differences in the aims.
Björn Tolgfors (2018)	Questionnaire, Interviews and observation	Mix Method	<ul style="list-style-type: none"> <li>• The data reveal five variations of AfL in PE, each designated after one of its most salient characteristics or traits. <ul style="list-style-type: none"> <li>(i) Empowerment,</li> <li>(ii) Physical Activation,</li> <li>(iii) Constructive Alignment</li> </ul> </li> </ul>

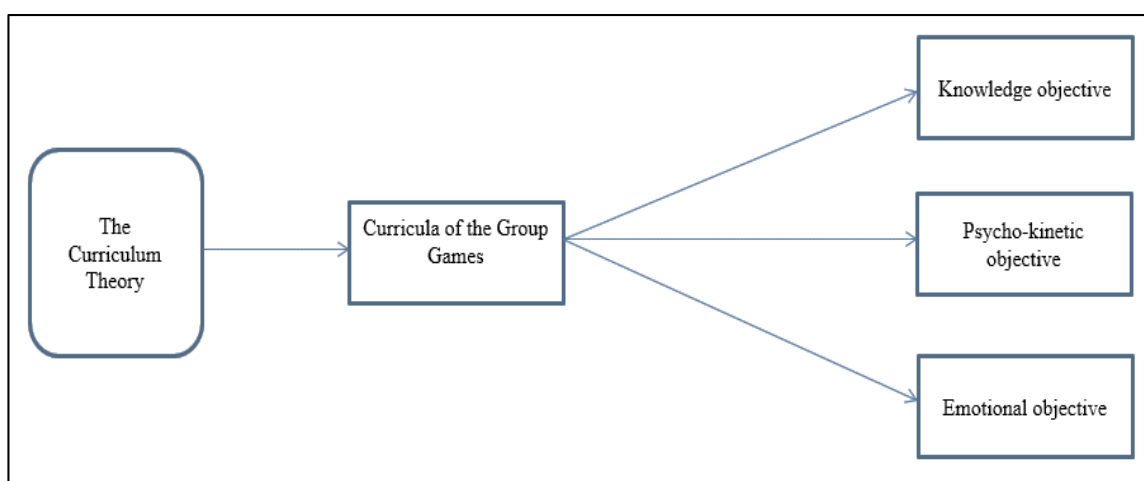
			<p>(iv) Grade Generation</p> <ul style="list-style-type: none"> <li>• Negotiation. The very people who engage in discursive acts are among their products.</li> </ul>
Leirhaug and Annerstedt (2016)	Questionnaire	Mix Method	<ul style="list-style-type: none"> <li>• Most of the study participants' reports of evaluation practices in PE did not correspond to the four key tenets of AfL.</li> <li>• Their PE instructors and supervisors imparted various interpretations and implementations of AfL, which supported this conclusion.</li> <li>• The study found that teacher and student perceptions of important AfL concepts varied, notably regarding feedback that advances learners.</li> </ul>
Bjorn Tolgfors and Öhman (2016)	Interviews	qualitative	<ul style="list-style-type: none"> <li>• The results demonstrate that there are numerous strategies to implement AfL. Three different instructional method consequences are categorized as <ul style="list-style-type: none"> <li>(i) government by way of freedom,</li> <li>(ii) control and oversight of government</li> <li>(iii) dialectic governance</li> </ul> </li> </ul>
DinanThompson and Penney (2015)	Informal interviews, surveys and document analysis.	Qualitative	<ul style="list-style-type: none"> <li>• Using the elements has made it possible to understand practices in their context, and research has revealed that teachers and supervisors interpret and apply the elements in different ways.</li> <li>• This study has shown the importance of enhancing teachers' abilities in all assessment literacy areas while emphasizing "critical engagement with assessment." The importance of the latter component is particularly related to power dynamics and injustices in evaluating opportunities, procedures, and outcomes.</li> </ul>

### **2.13 Theoretical Framework**

Currently, curriculum intellectuals' primary concerns are clarification of value orientations, fundamental decision-making, selecting and stating curriculum goals, identifying and organizing program contents, and the curriculum amendment process (Beauchamp, 1968). The most conventional and widely used orientation is disciplinary control. Four more beneficial educational orientations have been recognized by curriculum experts: social transformation, self-realization, learning process, and ecological validity (M. K. Smith, 2000). One of the most difficult areas of curriculum study is curriculum theory. Schubert's (1986) field survey is a useful review of curriculum studies. Slattery (2013) stated that "curriculum theory has many adverse and ambitious fractions contradictory. Arguments over appropriate educational ideas frequently tie political decisions to ideologies and their adherents. Westbury (2007) further explores the political development of curriculum inquiry in both the US and Europe. The theory guiding the creation and regulation of curricula is known as curriculum theory. In a broader sense, curriculum education includes historical curriculum research, an evaluation of the current educational curriculum, and policy decision-making. Regarding curricular theory, there are various points of view, including (Þórólfsson & Lárusson, 2009). The curriculum is the name given to the way in which student learning is arranged and steered by the school to achieve the educational objectives (Y. C. Kim & Jung, 2019). Goals or objectives, materials or themes, methods or processes, and assessment or evaluation are the four divisions of the curricular theory. The first dimensions deal with the inclusion or exclusion of the topics from the curriculum (Steiner, 2017). Curriculum inclusion justification sets can be broadly categorized into four categories; logical depiction of various spheres of knowledge, specific mental or cognitive procedures, socio-cultural differentiation, and meditative actions about an ideal society (Y. C. Kim & Jung, 2019). The second dimension is related to the content or subjects. It is associated with the knowledge, skills, or indicators that are inherent in the selection of objects and how they are organized. The two most crucial connections between different knowledge items are the level of integration and development within the domain. The curriculum theory experts have also emphasized the goal and objectives described earlier. Three models have been proposed; curriculum as content, curriculum as a process, and curriculum as a product (Noll & Wilkins, 2002). The third dimension is concerned with the

procedures and methods and is related to the teaching techniques and addressed according to the preferences in the first two dimensions. The term "pedagogy" refers to the teaching strategies utilized to deliver the curriculum. To meet the demands, a number of techniques have been created, including didacticism, mimicry, interpersonal opinion-exchange, and apprentice training. Primary learning ideas include contextual learning and symbol-processing (Beauchamp, 1982). These two methods emphasize the significance of assessment, metacognition, and learning styles. The assessment or evaluation of the curriculum, which determines if its implementation is proceeding as planned, is the fourth component of the curriculum theory (Gay, 1995).

**Figure 1.** Conceptual Framework of the Study



The Iraqi educational system of physical education follows a fundamental theory for its classroom instruction, placing emphasis on both academic material as well as preserving traditional values and balanced lifestyles. It views education as a way to benefit both individuals and society and regards the teacher as the center of the educational process, responsible for transferring knowledge, skills, attitudes and values to future generations while simultaneously protecting them from external influences. The theory drives a progressive school system, focusing on developing students' mental and intellectual capacities while also distinguishing between essential and nonessential curricula. The teacher's role is highlighted in this system, as they are



key to the educational process. According to the essential theory, the purpose of school is to develop students' mental and intellectual capacities. Based on this, essentialists focus on identifying what is and is not essential in curriculum and reaffirming the importance of the teacher in the educational process. The owners of this theory argue that the curriculum's material is constant and unchanging; thus, they prioritize what is relevant and important for all ages without ignoring the human sciences (Mohammadi, 2021) The Iraqi educational system of physical education also promotes the development of physical and motor skills, as well as providing physical activity opportunities for students. Physical education classes are designed to be developmentally appropriate, with an emphasis on teaching basic motor skills, sportsmanship, and health-related fitness. The curriculum is designed to foster a lifelong interest in physical activity, as well as teaching students the importance of physical fitness, body awareness, and the benefits of an active lifestyle. Additionally, physical education classes provide students with an opportunity to practice a wide range of activities, such as track and field, gymnastics, and team sports. Furthermore, physical education classes are also used to teach important values, such as respect, cooperation, and sportsmanship. The incorporation of these values is essential for the development of a healthy, active, and responsible generation.

## **2.14 Conclusion**

This chapter reviewed and summarized the relevant literature. Firstly, the chapter reviewed the literature on group games. Secondly, this chapter examined the relevant literature on general and specific objectives of physical education. Thirdly the chapter briefly elaborated on the standard for content selection. Assessment of the physical education and assessment-related tools were also elaborated on in this section. Lastly, this chapter discussed the previous studies. The next chapter presents the research methodology of the current study.

## CHAPTER III

### Methodology

#### 3.1 Introduction

In order to evaluate the curriculum content of group games in physical education for achieving educational goals, a mixed-method research methodology was used in this study. The methods utilized to answer the research questions for this study are covered in this chapter. The research design, participant selection and sampling, instrumentation, instrument validity and reliability, data collection techniques, and data analysis techniques are all covered in this chapter.

#### 3.2 Research Design

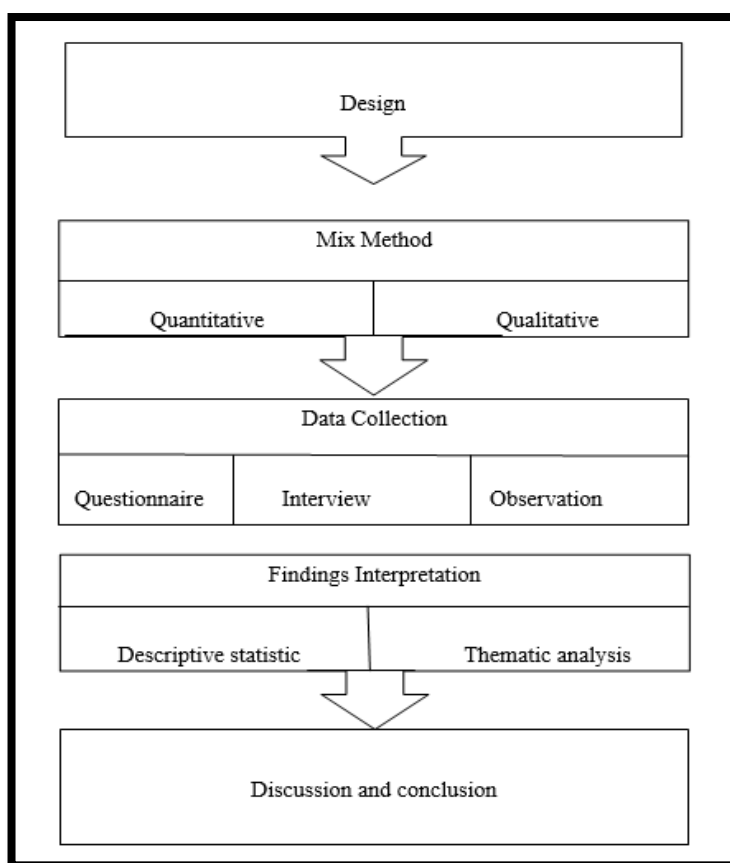
A mixed methods research design was used in this study. Researchers have the freedom to choose their preferred research methods and procedures. However, researchers are supposed to explain the reasons for choosing a specific approach over methods. Additionally, the methodology chosen must be consistent with the purpose of the study and pertinent to the problem of the study. "The research methodology employed is frequently influenced by the nature of the research problem or topic under discussion, the researchers' own experiences, and the study's target audiences. " (Creswell, 2014, p. 31). Additionally, researchers should weigh the method's benefits against the increased resources and skills needed. "Just because you can obtain numerical and narrative data for a single research issue does not mean you can conduct a mixed-methods study" (Halcomb & Hickman, 2015).

A mixed-method design can help to mitigate and overcome the faults and limitations of a single research methodology, as well as to acquire a deeper understanding of the study problem or questions, given that all methods have limitations and that relying on a single data source is insufficient (Creswell, 2014). According to Almalki (2016), the mixed method is appropriate for any research project because it provides a greater depth and breadth of information than a single approach can provide. Halcomb and Hickman (2015) assert that researchers must employ a mixed-method approach when addressing complex issues in research projects.

The importance or weight given to quantitative or qualitative data is determined by various factors, such as the researcher's interests or what the researcher wants to

emphasize in the study (Creswell, Plano Clark, Gutmann, & Hanson, 2003). This study decided to highlight quantitative data, as the study aims to assess the curricula content of group games in achieving educational objectives. Furthermore, the qualitative data was used to confirm, corroborate, and cross-validate research findings from the quantitative data analysis using qualitative data (Creswell et al., 2003; R. B. Johnson & Onwuegbuzie, 2004). As a result, using both approaches can result in the interpretation of data that is extensive. The current study aims to evaluate the group game curricula in physical education for accomplishing educational goals. Several studies have utilized the mix-method to evaluate the curricula. For instance, Otero-Saborido et al. (2020) designed and used mix-method to assess the physical education curricula. Figure 2

**Figure 2: Research design**



### 3.3 Population and sample of the study

The target population for this study is specialized supervisors and instructors of the institutes of physical education in north of Iraq. Full-time supervisors and instructors are selected in this study as they spend more time in the school rather than part-time

instructors and supervisors. Therefore, full-time instructors and supervisors can have more information about the curriculum of group games.

### 3.3.1 Sampling and Sample Size for the Quantitative Part

The total number of instructors in the selected physical education institutes is 225, and the number of supervisors in the selected physical education institutes is 95. To determine the sample size for instructors and supervisors, the researcher uses the table developed by Krejcie and Morgan (1970) to determine the sample size. According to this table, the sample size for a population between 220 to 230 is 140-144. While a population between 95 is 76. The guidelines related to sampling are shown in Table 2.

**Table 2.** Krejcie and Morgan Sampling Method

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	100000	384

However, based on Krejcie and Morgan (1970), the sample needed for the study is 186. The selections of 142 instructors and 76 supervisors from the institutes of physical education were done using stratified random sampling. Stratified random sampling can also help derive adequate conclusions from the obtained results, which can help further understand the issue to the utmost level possible. Using the stratified random sampling technique in this study has largely helped collect the best possible samples, thereby avoiding biases to a large extent (Nguyen et al., 2021). Tables 3 and 4 below show the number of participants from each physical education institute using a stratified sampling method.

**Table 3.** The number of participants (instructors)

Male	101
Female	41
Total	142

**Table 4.** The number of participants (supervisors)

Male	59
Female	17
Total	76

### 3.3.2 Sampling and Sample Size for the Qualitative Part

#### *Sampling*

For the qualitative portion of this study, participants were chosen through purposeful sampling. No precise recommendations for sample tactics exist for mixed methods designs. Palys (2008) claims that there is no single best sampling strategy; instead, it depends on each study's nature and goal (Palys, 2008). Researchers randomly chose their sample for the quantitative part of a mixed-method study. On the other hand, it is not apparent how interview applicants will be chosen for the qualitative section. Most qualitative research includes a relatively small number of participants. As a result, giving significant thought to respondent recruitment is important. Although "representativeness is not the major concern in most qualitative research: what is considerably more crucial is a willingness to engage in the study," appropriate socio-demographic variety is not essential. This is because qualitative research "should not be used to infer it" and instead tries to "understand perspectives, processes, restrictions, challenges, and uncertainties." (Coast et al., 2009, p: 10). As a result, this study used purposive sampling, specifically "stakeholder sampling" stakeholder sampling refers to the major stakeholders involved in the program's design, giving, and administration (Palys, 2008). Instructors and supervisors were explicitly chosen as participants. According to the above definition of "stakeholder sampling," these two groups are

major stakeholders in implementing the physical education curriculum according to the purpose mentioned above of 'stakeholder sampling'.

### *Sample Size*

Ten people make up the study's sample size for the qualitative component. When choosing a sample size for qualitative investigations, there are no criteria or guidelines to adhere to. There are several crucial considerations, though. The first step for researchers is to choose a sample size that will enable them to gather enough data. You should have "nothing else to learn" after examining the sample size, which should be sizable. In other words, after the tenth interview, you might find that no new ideas have surfaced. " The sample size also needs to be large enough to adequately represent the target population (Morse, 2000). Last but not least, the sample size is limited by the time and resources available for data collection. The process of gathering data for qualitative investigations typically takes a lengthy period. Because of this, information is typically gathered from a smaller sample, particularly when researchers are pressured for time. The sample size can also be decreased if additional quantitative data are collected in addition to the qualitative data. The qualitative element of this study is employed as a supplement to the quantitative method to avoid the constraints of a single data-gathering technique. Ten participants make up the sample size for the qualitative portion of this study, five of whom are instructors and five of whom are supervisors.

## **3.4 Method and Instrument of Data Collection**

In order to learn more about the variables, data must be collected. This study used a mixed-methods approach, with descriptive qualitative predominating. The methods used to obtain the data were surveys, interviews, and classroom observations.

### ***3.4.1 Instrumentation***

The researcher looked carefully through the literature but could not locate a survey that would appropriately answer the research questions. Certain claims, however, were made using data from earlier studies (see Tables 7 and 8). The researcher's own experiences and a review of previous surveys in the literature revealed how the researcher might design their study for this topic. As a result, the researcher developed a survey with four sections. The first section contained demographic information about the participants, such as their gender, educational background, and years of experience.

Section two was created to collect data on achieving knowledge objectives in the context of group games in physical education. The third section contained items achieving the psycho-kinetic goal in the content of group games in physical education. Finally, a section was created for achieving the emotional objective in the context of group games in physical education. The instruments had items that were graded on a five-point Likert scale. As a result, the 5-Likert scale was used to design the questionnaire (extremely agree, agree, none, disagree, and extremely disagree). The Five-point Likert scale has been reported to have higher reliability than the Seven-point Likert scale (Nemoto & Beglar, 2014). It also makes it easy to compare the reliability coefficients with other studies. The surveys and their transmittal letters were translated into Kurdish, the targeted population's official language. An expert validated the translation of the questionnaire.

### **Section A: Demographic Questionnaire**

A demographic profile is a description of a respondent's characteristics. It is important to know your respondents and determine whether they are the appropriate individuals for this study to collect valuable data. This section primarily collects data on the respondents' demographic characteristics, including their district, gender, age, highest academic level, years of experience as an instructor, and years of experience at their current school.

### **Section B: Knowledge Objective**

In this section, the knowledge objective in the content of group games will be assessed. The instrument contains 10 items. The list of items for the Knowledge objective scale is shown in Table 5.

**Table 5.** Knowledge Objective (List of items)

Subscales of knowledge objective	List of Items	Number of Items
Subscales of knowledge objective	1,2,3,4,5,6,7,8,9,10	10
	Total	10

### Section C: Psycho-Kinetic Objective

In this section, the Psycho-Kinetic objective in the content of group games will be assessed. The instrument contains 11 items. The list of items for the Psycho-Kinetic objective scale is shown in Table 6.

**Table 6.** Psycho-Kinetic Objective (List of items)

Subscales of psycho-kinetic objective	List of Items	Number of Items
Subscales of psycho-kinetic objective	11,12,13,14,15,16,17,18,19,20,21	11
	Total	11

### Section D: Emotional Objective

In this section, the Emotional objective in the content of group games will be assessed. The instrument contains 10 items. The list of items for the Emotional objective scale is shown in Table 7.

**Table 7.** Emotional Objective (List of items)

Subscales of Emotional objective	List of Items	Number of Items
Subscales of Emotional objective	22,23,24,25,26,27,28,29,30,31	10
	Total	10

#### 3.4.2 Validity and Reliability of the Instrument

The following steps were taken to measure the extent to which the survey measures what it was intended to measure: The survey items were gathered and developed using the literature review and the researcher's own experiences. The sources for the information obtained from the literature review are shown in Table 8, while the sources garnered from the researcher's own experiences are shown in Table 9.



**Table 8.** Sources of Items Obtained from the Literature review

Source	Items Numbers
Al-Oun and Qutaishat (2015)	1,2,3,12,13,14,15,22,23,24,25,26

**Table 9.** Sources of Items Obtained from the researcher's personal experiences

Source	Items Numbers
researcher's personal experiences	4,5,6,7,8,9,10,11,16,17,18,19,20,21,27,28,29,30,31

A group of experts in the field of physical education was selected to validate the overall design of the study and the questions in the questionnaire. Three of the experts considered the research questions and questionnaire items, while the remaining two experts looked at the study and provided input to the research design and they agreed that the content areas of these items are based on the appropriate categories. The questionnaire and interview texts were translated into local language with the support of a professional certified translator (as shown in Appendix F).

The pilot study was conducted to elicit data regarding physical education institutes' current group games curriculum. After completing the study, Cronbach's Alpha was used to test the items' internal consistency. Table 10 shows which items were added to the survey and which were removed. The study's significance level (alpha level) for each research question was set at 0.05.

**Table 10.** Cronbach's Alpha

Scale	Original Items	Items removed	Items Included For Analysis	Cronbach's Alpha
Knowledge objective	1,2,3,4,5,6,7,8,9,10	-	10	.98
Psychokinetic objective	11,12,13,14,15,16,17,18,19,20,21	-	11	.78

Emotional objective	22,23,24,25,26,27,28,29,30,31	-	10	.89
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### ***3.4.3 The procedure of Data collection***

Quantitative and qualitative data will be collected in this study. There are several procedures needed to be carried out for data collection. First and foremost, an official letter will be obtained from the Institute of physical education to conduct the data collection. Then, permission from General Directorate of Institutions and Training (GDIT) will request the official letter from the University of Near East to conduct the study. After obtaining the permission letter from the General Directorate of Institutions and Training (GDIT) at the Ministry of Education (MOE), a letter will be sent to the State Education Department to get written permission to conduct the data collection in the selected ten physical education institutes. (as shown in Appendix B).

## **3.5 Data Collection Method for Qualitative Part**

### ***3.5.1 Interviews***

This study conducted semi-structured interviews with 5 physical education instructors and 5 supervisors. With semi-structured interviews, the researcher can be sure that the interviewees' responses and perceptions of reality are not predetermined (Britten, 2006); however, it enables the researcher to pursue any topics brought up by the participants. Additionally, the researcher discussed the subject throughout ongoing interview sessions, listened to respondents' evolving viewpoints, and created fresh ideas (Hopf, 2004). According to Roulston and Choi (2018), when participants cannot be monitored directly, interviews are useful for gathering information and allowing participants to disclose detailed personal information. Individual Kurdish-language interviews were conducted with each applicant. (as shown in Appendix D). The purpose of the interview and study, applicant confidentiality and anonymity, and their willingness to be interviewed and recorded using a digital tape recorder were all informed by the respondents at the beginning of each questioning session.

### ***3.5.2 Observations***

Observation is a data collection method in which an observer pays close attention to the subject of the research (Angrosino & Rosenberg, 2011). The observation method is used to view and notice the changing social phenomena as they grow and develop

and distinguish between what is important to include in the research and what is not (Marvasti, 2014). To put it another way, the goal of observation is to observe the object directly. The researcher can easily distinguish between what is and is not. Observations served multiple purposes. The researcher observed the 5 physical education classes for one week. The researcher observed the classroom situation mainly focused on the curricula of group games in achieving the knowledge, psycho-kinetic, and emotional objectives. In the observation, field notes were used. (as shown in Appendix E).

### **3.6 Data Collection for Quantitative Part**

After getting all the consents, the respective institute was emailed a copy of the permission letters and an official letter to seek permission from the heads of the physical education institutes. The questionnaire was prepared in physical form and distributed by hand (face-to-face) to the principals. (as shown in Appendix C). Subsequently, follow-ups with the heads of the physical education institutes were done, and a briefing gave to them on the instrument. The heads of the physical education institutes were informed that participation was voluntary. All the collected data was used for the study. The actual research was conducted two weeks after the pilot study. The actual study was handled by distributing the survey instruments to the 10 physical education institutes instructors and supervisors. 142 questionnaires were distributed to physical education instructors and 76 supervisors of 10 physical education institutes. Respondents were given fourteen days to complete the questionnaire.

### **3.7 Data Analysis**

#### ***3.7.1 Quantitative Analysis***

A statistical software for social sciences called IBM SPSS 23 was used to analyze the data for this study. The independent sample t-test analyzed responses from the API. The most suitable statistical approach for comparing the mean scores of two groups on the survey items is the independent sample t-test (Semenick, 1990). The objective of this analysis was to determine whether there were statistically significant differences between the content of the curriculum of group games taught in the physical education institutes to achieve the knowledge, psycho-kinetic, and emotional objectives for the

students. To do this, the independent sample t-test was used to compare the mean scores on the measures.

### ***3.7.2 Qualitative Analysis***

The associations and subject matter expressed through the data collection were explained using qualitative data analysis. According to Sgier (2012), outlining the distinctions between description, analysis, and interpretation the three pillars of analysis will help present the data. In light of this, content analysis and qualitative data gathering were interpreted simultaneously. For instance, the decision to permit early interpretation during data collection based on the specifications to be included in the database is entirely up to the researcher (J. A. Smith, 1995). This study analyzed qualitative data using Braun and Clarke's (2006) six principles of thematic analysis. Thematic analysis is a simple type of qualitative analysis that is helpful for people still learning qualitative techniques because it does not need the same level of in-depth theoretical and technical competence as other approaches (Sandelowski, 1995). The interview was conducted in the Kurdish language to motivate informants to articulate themselves freely and broaden their ideas. Data transcriptions were made. The transcriptions were translated into English and compared to the original to ensure accuracy.

### **3.8 Conclusion**

Chapter 3 presents to the reader the research methodology applied in this research study. It explains the design, population, location, sample, and instrument. This study uses a mix-method approach; for the quantitative part, this study uses a survey method for data collection by distributing a set of questionnaires as the instrument. For the qualitative part, interviews and observation will be conducted to collect the data. For quantitative, descriptive and inferential analysis using, SPSS software will be used, and for qualitative analysis, the thematic analysis will be used for this research study by NVivo12 software. In conclusion, choosing a suitable research methodology is important to solve problems systematically and produce precise, clear, and scientific results.

## CHAPTER IV

### Data Analysis

#### 4.1 Introduction

This chapter shows how to assess relevant data and reach a reasonable conclusion for the study's objectives. This study was based on a mixed method. At first, the study shows qualitative analysis followed by quantitative analysis. Qualitative analysis was performed by NVivo 12 software and quantitative analysis by SPSS. Several preliminary analyses and data diagnostics procedures were conducted first to ensure data reliability and validity. This chapter will discuss descriptive statistics, frequency distribution with a bar chart, and the hypothesis test through an independent sample T-test. An empirical finding was discovered using statistical approaches and analysis. In addition, the empirical data obtained from testing the study hypotheses will be presented and analyzed in this chapter.

#### 4.2 Qualitative Analysis

##### *4.2.1 Semi Structure Interview Data Analysis*

There are several ways researchers could analyze qualitative data. This study Braun and Clarke (2006) methodology to represent the data. Braun and Clarke (2006) describe a six-phase process that might be utilized to carry out this research (Braun & Clarke, 2006). Researchers Braun and Clarke (2006) recommend the following six steps. Step 1: Become familiar with the data; Step 2: Generate initial codes; Step 3: Search for themes; Step 4: Review themes; Step 5: Define themes; Step 6: Write-up.

##### **Step 1: Become familiar with the data,**

Reading and rereading the transcripts is the first step in any qualitative research project. Before moving on to any later stages, researchers should become quite familiar with the complete body of data or data corpus. At this phase, taking notes and noting initial impressions is beneficial. After carefully reading the data, it was inferred that 10 semi-structured interviews were conducted with 5 physical education instructors and 5 supervisors. The semi-structured interview consists of one Opening question, one Introductory question, and, most critically, one research question followed by 9 specific questions.

### **Step 2: Generate initial codes**

At this stage, researchers start to effectively and systematically organize data. Large volumes of data are divided into digestible informational pieces through coding (Braun & Clarke, 2006, 2012). There are various coding techniques, and the approach used will depend on the researcher's viewpoint and the study's objectives (Javadi & Zarea, 2016; Maguire & Delahunt, 2017). Given that it was focused on providing answers to specific research questions and conducted with this in mind, it was a theoretical theme analysis instead of an inductive one. As a result, researchers coded every data segment associated with or reflected something noteworthy about this study topic. Not all text lines were coded (Terry, 2016). Line-by-line coding might have been used if the investigator conducted a more inductive study to code each line. The researcher used open coding, which means that rather of using pre-programmed programs, he developed and altered them as he went along. When the researcher concluded Step 1, he had some early thoughts regarding coding. For example, seeking to address criticism with the instructor one-on-one was a recurring theme and was quite important to our study topic. The researcher spoke about them and came up with some rough coding ideas. Then each researcher went about coding a transcript on their own. The researcher coded every piece of text that looked to be related to or particularly addressed this study issue as they went through each transcript. While proceeding to the remaining transcripts, the researcher reviewed and reviewed and updated codes. The researcher developed new codes and occasionally changed existing ones as they moved through them. The researcher conducted this coding analysis through NVivo 12 pro software rather than manually. However, additional tools can also be useful; for instance, Bree and Gallagher (2016) explain how to code and identify themes using Microsoft Excel. While it is advantageous to have two (or more) people working on the coding, it is not necessary. This study has conducted the coding in NVivo software to get more robust results on the qualitative data. More than 100 codes have been generated on the software to perform the data analysis. As shown in table 11.

### **Step 3: Search for themes**

A theme is a recurring pattern that encompasses something significant or fascinating that is discovered in data and/or research questions. As Braun and Clarke (2006) note, there are no strict rules about what counts as a theme. A theme is determined by its

applicability. Finding preliminary themes may overlap greatly with the coding stage if you only have a small data set (such as one brief focus group).

#### **Step 4: Review themes,**

During this phase, researchers assess, modify, and improve the initial themes discovered in Step 3. Do they make sense? It makes sense to compile all the information pertinent to each topic. Anyone may do this by using the "cut and paste" feature of any word processing application, manually cutting and pasting transcripts with scissors, or using a tool like Microsoft Excel (see Bree and Gallagher (2016)). Although it is not always necessary, having access to qualitative analysis software speeds up and simplifies this process. NVivo software was used in this study to review the themes. To determine whether the data associated with each theme in any way supported it, the researchers looked at the data. Consider whether the themes are applicable across the entire data set as the very next step. This example only uses one extract from the data set; in reality, you will probably have many, and you will need to assess how the themes function within a single interview and across all of them.

#### **Step 5: Define themes**

The goal is to determine the "essence" of each topic. The themes have only been modified once before (Braun & Clarke, 2006). Currently, researchers are attempting to provide answers to the following queries: What is the message of the theme? If there are any subthemes, how do they relate to and link to the main theme? What connection do the topics have to one another? After extensive data analysis, the following themes were chosen for this study's thematic analysis.

**Table 11.** Coding and Themes for interview data

Name (Themes)	Files	References
Interviewee Introduction	2	2
Experiences	8	8
Work place	4	4
Passionate	8	8
Other profession	1	1
Benefits of PE profession	3	5
Definition of group games curriculum	10	30

objectives of group games curriculum	9	29
Achievement of Knowledge objective	9	16
Achieving psychokinetic objective	10	36
Achieving emotional objective	10	16
Improvement of group curriculum	8	17
Suggestions and recommendations	10	32

(Source: Author Own accumulation from NVivo 12 Software)

### **Step 6: Write-up.**

The procedure is completed with the writing up of the analysis based on the topics that were developed. Each theme discussion in this study will provide the specifics. The next section presents the specifics of each question analysis in this study.

The first two questions were as follows

1. Introduce yourself- tell us who you are, how many years have you been teaching physical education and at what levels?
2. Why did you get into the physical education teaching profession?

The most common answer to the first question is that they are from PE and they have been working in that particular institution for seven years as a reference by respondent 1

*“Reference 1 - 1.36% Coverage; I am a PE instructor at PE Institute. Reference 1 - 2.59% Coverage; I have been a specialized PE Instructors and PE instructors for 12 years”*

After that, two questions are specific to nine questions relating to this research. They are described as follows: "As an instructor or supervisor, how do you define group games curriculum".

Most respondents defined the group games curriculum as A group game may be defined as any activity where a group of players works together to beat the rival team. It is a curriculum taught theoretically and practically so that students should be aware of the rules of group games referenced by 4 and 5. The second question was that “What are objectives and importance of group games curriculum?” reference 1, 3 and 4 elaborated that the objectives and importance are enhancing mental activity, enhancing educational capacity, enhancing interpersonal communication skills, boosting physical health, enhancing psychological health, consolidating solidarity and cooperation among team members. *“References 1-3 - 7.07% Coverage; In a group game, all team members work collectively to achieve the team's goal. These games*



*also have other benefits, like enhancing the cooperation between team members. Reference 4 - 4.20% Coverage, scientifically preparing and training athletes so that they can achieve big objectives in the future*". The middle section is formed by five questions: "How will you share your perception regarding achieving the knowledge objective of the group games curriculum? What is your opinion regarding the group games curriculum achieving the psychokinetic objective? How will you address the group games curriculum's emotional objective? What kind of knowledge should you add to the group games curriculum? What is your overall comment on the group games curriculum?" This question was analyzed and pictured in the thematic analysis. More details are illustrated in Figure 3 and Figure 4. The last segment of the interview question was "What improvements have you observed within the group games curriculum?" and "Is there anything else you would like to add?". The most suggestion was that authority should focus on the curriculum, involve more technology and provide sufficient training. *"References 1-2 - 6.94% Coverage, more skilled staff should be provided to work on skills and psychological aspects. A better place for training should be secured. Logistical aspects of the training should also be provided. Reference 3 - 9.48% Coverage, the psychology of group games players should be given more attention, and a good psychological atmosphere should be provided so that players can have their roles more effectively, and so that they can help each other"*

#### **4.2.2 Qualitative data Visualization and Thematic analysis**

Thematic analysis is one of the most widely utilized methods in qualitative research. It places a strong emphasis on finding, analyzing, and interpreting important patterns in qualitative data. (Braun & Clarke, 2012; Clarke, Braun, & Hayfield, 2015; Joffe, 2012; Neuendorf, 2018; Terry, Hayfield, Clarke, & Braun, 2017). Thematic analysis is a method of assessing qualitative data. Typically, it alludes to a group of texts, such as an interview or a transcript (Braun & Clarke, 2012; Clarke et al., 2015; Joffe, 2012; Neuendorf, 2018; Terry et al., 2017). In order to find recurring themes, subjects, concepts, and patterns of meaning, the researcher carefully evaluates the data. The researcher has created a query using the NVivo 12 software that will let us see the frequency of terms used in the article under consideration. The researcher has identified the most often used terms in the referenced references since they are shown according to their relevance; the more a term is presented, it will appear in huge

proportions and be positioned in the cloud's center. The details are illustrated in figure 3.

*Figure 2.* The curriculum of group games (words Frequency analysis)

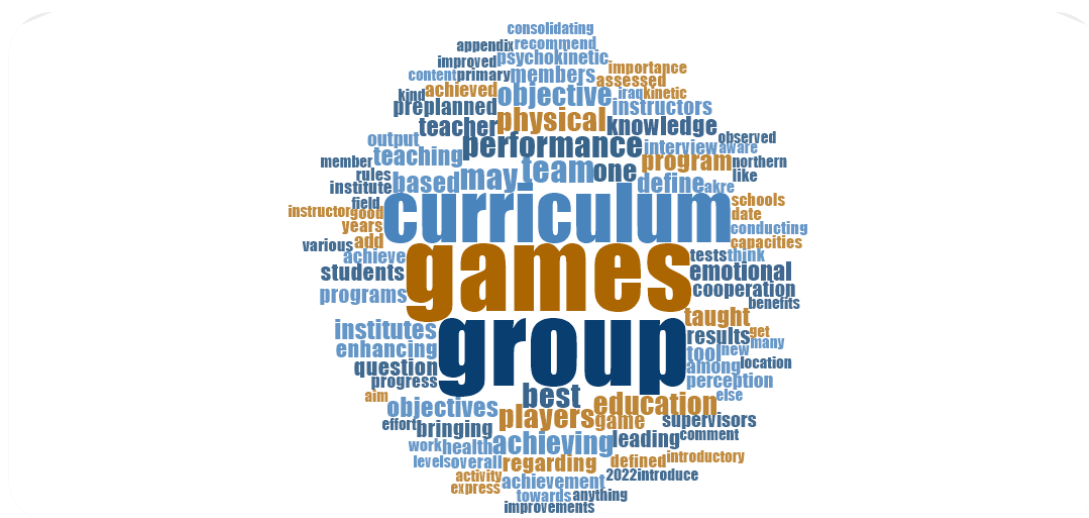
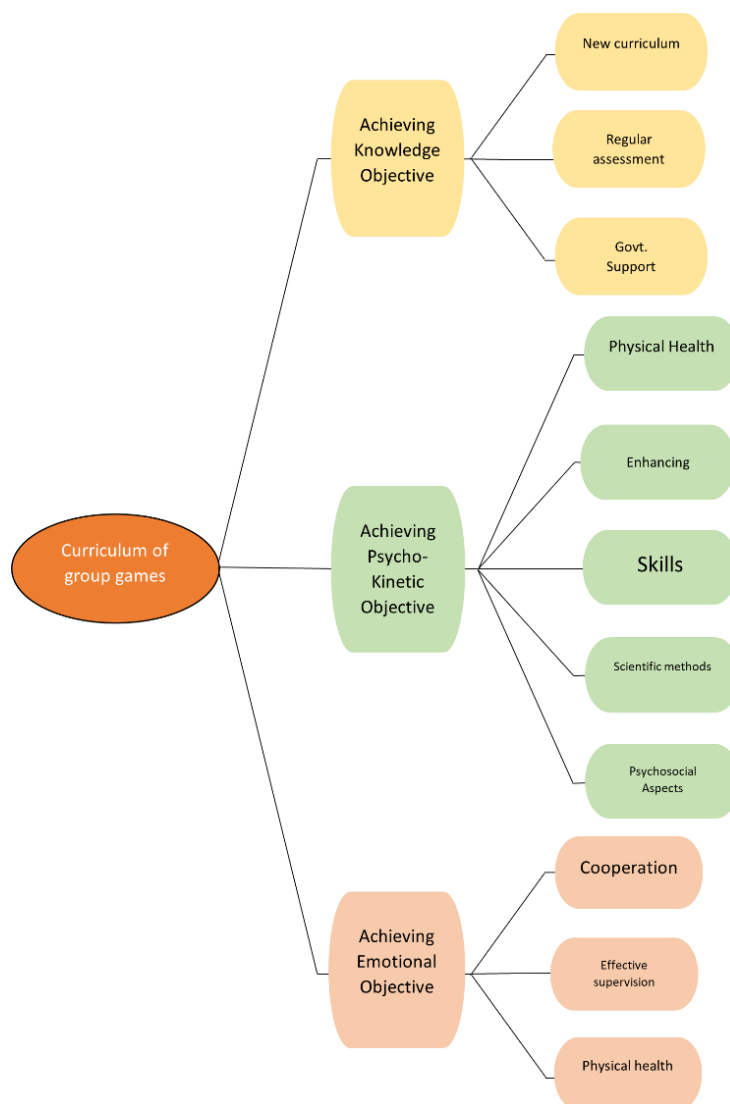


Figure 4 illustrates the three constructs of group games curriculum as the Achievement of Knowledge objective (new curriculum, regular assessment, govt. support), Achieving psychokinetic objective (physical health, enhancing capabilities, skills, scientific methods, psychological aspects), Achieving emotional objective (cooperation, effective supervision, physical health).

**Figure 3.** The curriculum of group games (Thematic Analysis)



#### **4.2.3 Observational Data Analysis**

This study followed Braun and Clarke (2006) observational data analysis recommendations and suggestions. They have suggested a six-phase process that could be applied to this kind of research (Braun & Clarke, 2006).

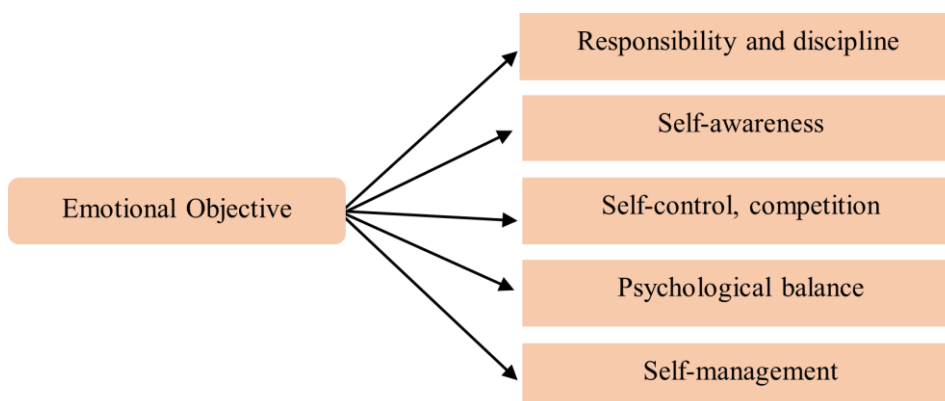
According to experts Braun and Clarke, you should take the following six steps. They are Step 1: Become familiar with the data, Step 2: Generate initial codes, Step 3: Search for themes, Step 4: Review themes, Step 5: Define themes, and Step 6: Write-up. These were the same steps that were used in the semi-interview questions analyzed. Table 12 will discuss these coding and themes regarding the observational data in the following section.

**Table 12.** Coding and themes for observational data

Name (Themes)	Files	References
Knowledge objective	9	16
Psychokinetic objective	10	36
Emotional objective	10	16

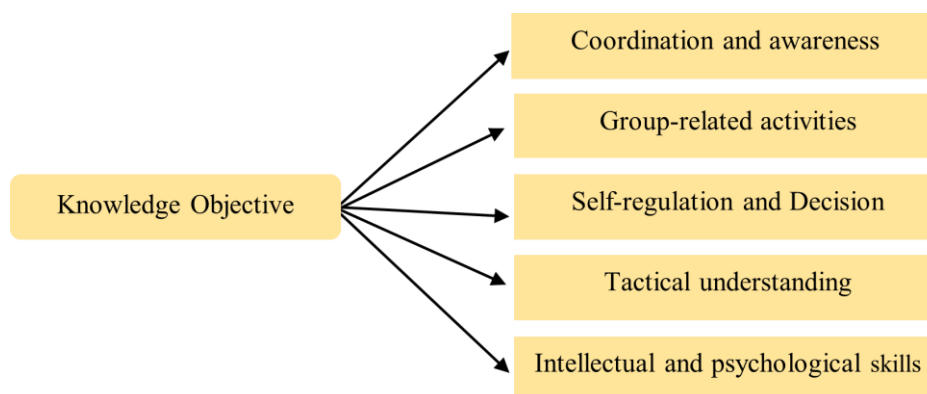
**Observational data Thematic analysis**

Under emotional objective, the observation study explained that it demands Responsibility and discipline, Self-awareness, Self-control, competition, regulations, psychological balance, and Self-management. Figure 5 illustrates more about it.

**Figure 4.** Emotional Objective (Observational Thematic analysis)

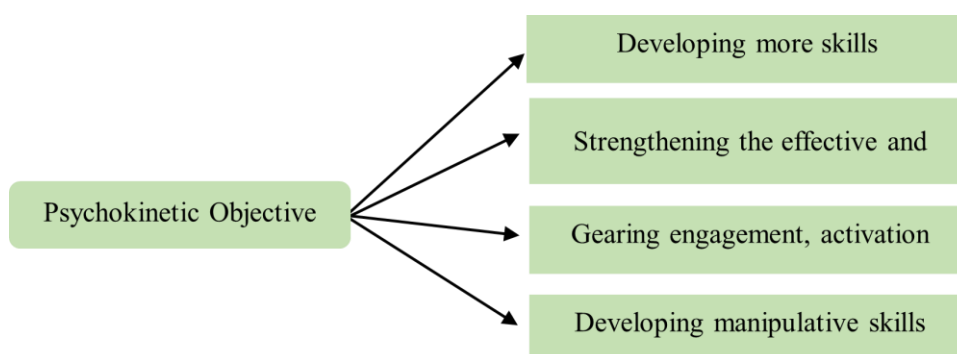
Under Knowledge Objective, the observation study explained that it demands Coordination and awareness, Group-related activities, Self-regulation and Decision making, Tactical understanding, and Intellectual and psychological skills. Figure 5 illustrates more about it.

**Figure 5.** Knowledge Objective (Observational Thematic analysis)



Under Psychokinetic objectives, the observation study explained that it demands developing more skills, strengthening effective and concept handling, Gearing, engagement, activation, and Developing manipulative skills. Figure 7 illustrates more about it. The following section will discuss the qualitative analysis of this study.

**Figure 6.** Psychokinetic objectives (Observational Thematic analysis)



### 4.3 Quantitative Analysis

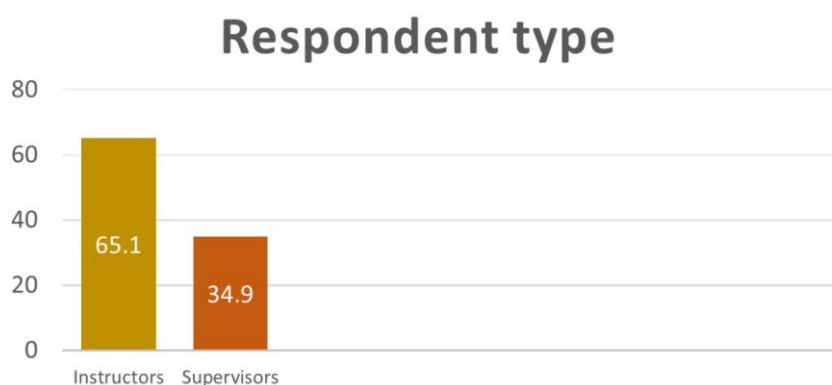
#### 4.3.1 Demographic Characteristics

Population characteristics, such as age, gender, and income, are statistically represented in demographic statistics. It is the most common format to introduce the respondent in front of the readers. This study has four categories of information such as respondent type, gender, educational qualification and teaching experiences.

Firstly, Table 13 and Figure 8 represent the respondents' type of information. There are 142 instructors and 76 supervisors, meaning 65.1% are instructors and the rest 34.9% are supervisors.

**Table 13.** Respondent Type

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Instructors	142	65.1	65.1	65.1
	Supervisors	76	34.9	34.9	100.0
	Total	218	100.0	100.0	

**Figure 7.** Respondent Type

Secondly, Table 14 and Figure 9 represent the gender information. There are 160 males and 58 females, which means 73.4% are male and the rest 26.6% are female.

**Table 14.** Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	58	26.6	26.6	26.6
	Male	160	73.4	73.4	100.0
	Total	218	100.0	100.0	

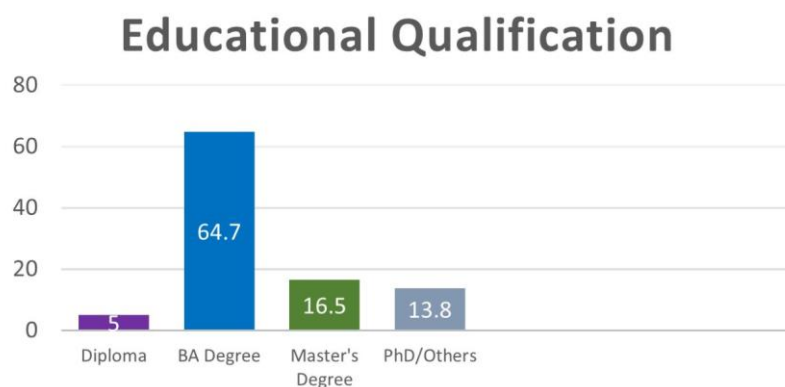
**Figure 8.** Gender

Thirdly, Table 15 and Figure 10 represent the Educational Qualification information. There is four category diploma 5%, BA degree 64.7%, which is the highest; Master's degree 16.5%, Ph.D. 13.8%.

**Table 15.** Educational Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	11	5.0	5.0	5.0
	BA Degree	141	64.7	64.7	69.7
	Master's Degree	36	16.5	16.5	86.2
	PhD/Others	30	13.8	13.8	100.0
	Total	218	100.0	100.0	

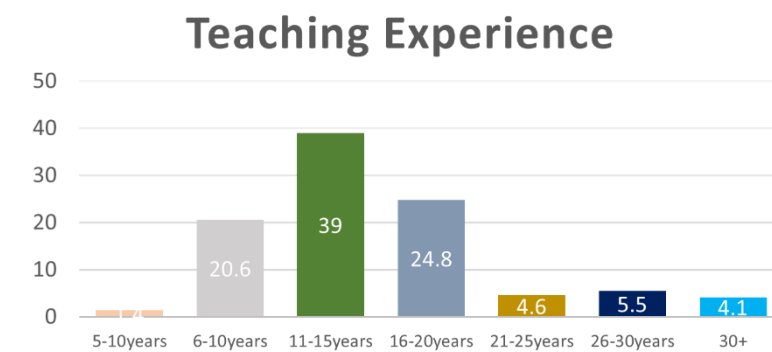
**Figure 9.** Educational Qualification



Fourthly, Table 16 and Figure 11 represent the Teaching Experience information. There are seven categories of information 0-5 years 1.4%, 6-10 years 20.6%, 11-15 years 39%, 16-20 years 24.8%, 21-25 years 4.6%, 26-30 years 5.5%, 30 years and more 4.1%. Among all the categories, most respondents belong to the 10-15 years of experience group. In addition, Table 17 represents the mode and mean of all the demographic feats of the respondents.

**Table 16.** Teaching Experience

Years of experience		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-5 years	3	1.4	1.4	1.4
	6-10 years	45	20.6	20.6	22.0
	11-15 years	85	39.0	39.0	61.0
	16-20 years	54	24.8	24.8	85.8
	21-25 years	10	4.6	4.6	90.4
	26-30 years	12	5.5	5.5	95.9
	30 years and more	9	4.1	4.1	100.0
	Total	218	100.0	100.0	

**Figure 10.** Teaching Experience**Table 17.** Descriptive Statistics (Demographic)

		Respondent Type	Gender	Educational Qualification	Teaching Experience
N	Valid	218	218	218	218
	Missing	0	0	0	0
Mean		1.3486	.7339	2.3899	2.4358
Mode		1.00	1.00	2.00	2.00

#### 4.3.2 Descriptive statistics

There are 218 respondents; 160 are male, and 58 are female. The descriptive study shows (Table 17 ,18) that there are 7 specific constructs Respondent Type, Gender, Educational Qualification, Teaching Experience, Achieving Knowledge Objective, Achieving the Psycho-Kinetic Objective, and Achieving the Emotional Objective. All



the constructs designate mean values that are positive on average. In addition, Educational Qualification means vale 2.38 means most respondents hold a BA degree. Additionally, Teaching Experience 2.43 means that respondents have 10 to 15 years of experience.

**Table 18.** Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Respondent Type	218	1.00	2.00	1.348	.477
Gender	218	.00	1.00	.733	.442
Educational Qualification	218	1.00	4.00	2.389	.785
Teaching Experience	218	.00	6.00	2.435	1.290
Achieving Knowledge Objective	218	1.00	5.00	3.714	.931
Achieving the Psycho-Kinetic Objective	218	1.00	5.00	3.640	.987
Achieving the Emotional Objective	218	1.00	5.00	3.703	.999

### **4.3.3 Hypothesis Testing**

The data are thoroughly scrutinized by the researcher to spot recurring themes, subjects, ideas, and patterns of meaning (Gerald, 2018). The Independent Samples T-test is one kind of parametric test. Several authors and researchers have suggested an independent sample T-test for two groups' data. One can reject the null hypothesis if the p-value is less than the threshold for significance (for example, 0.05). The two means' difference is statistically significant. The data from the sample is convincing enough to support the conclusion that the two-population means are not equal (Gerald, 2018; T. K. Kim, 2015). The measuring scale, random sampling, data distribution normality, sample size sufficiency, and equality of variance in standard deviation are typically assumed when performing a T-test (Sekaran & Bougie, 2016). In this study, there is a group of data males and females. At first, basic group statistics were inferred regarding three dimensions: Achieving Knowledge Objective, Achieving the Psycho-Kinetic Objective, and Achieving the Emotional Objective. In addition, male

participants were 160, and females were 58. Hence their mean values are all positive, ranging from 3.2 to 4.7. The following Table 19 was highlighted more this aspect.

**Table 19. Group Descriptive Statistics**

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Achieving Knowledge Objective	Female	58	4.6345	.34364	.04512
	Male	160	3.3813	.84988	.06719
Achieving the Psycho-Kinetic Objective	Female	58	4.6207	.40426	.05308
	Male	160	3.2856	.89096	.07044
Achieving the Emotional Objective	Female	58	4.7603	.30604	.04019
	Male	160	3.3200	.87981	.06955

As it was mentioned previously, there are three dimensions. Firstly, for achieving the knowledge objectively,  $F=46.451$  and  $P=0.000$  mean the alternative hypothesis was accepted as the p-value is less than 0.05. Secondly, for achieving the psycho-kinetic objective,  $F=44.535$  and  $P=.000$  mean the alternative hypothesis was accepted as the p-value is less than 0.05. Thirdly, for achieving the emotional objective,  $F=56.983$  and  $P=.000$ , which means the alternative hypothesis was accepted as the p-value is less than 0.05. In addition, the two groups for each dimension were also accepted as all the p-value were less than 0.05. It was inferred from this sample-independent t-test that all the dimensions or constructs have statistically Significant. More detail on it would be found in Table 20.

**Table 19. Independent Samples Test**

		Levine's Test for Equality of Variances		T-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Achieving Knowledge Objective	Equal variances assumed	46.451	.000	10.899	216	.000	1.253	.114	1.026	1.479

	Equal variances not assumed			15.485	213.578	.000	1.253	.080	1.093	1.412
Achieving the Psycho-Kinetic Objective	Equal variances assumed	44.535	.000	10.996	216	.000	1.335	.121	1.095	1.574
	Equal variances not assumed			15.137	205.760	.000	1.335	.088	1.161	1.508
Achieving the Emotional Objective	Equal variances assumed	56.983	.000	12.188	216	.000	1.440	.118	1.207	1.673
	Equal variances not assumed			17.931	215.794	.000	1.440	.080	1.282	1.598

#### 4.4 Conclusion

This chapter analyzed qualitative data through NVivo, and further quantitative data were analyzed through SPSS. After both data analyses, a reasonable conclusion was reached for the proposed research objectives. Several models are inferred in addition to the quantitative data analyzed to test the hypothesis from the qualitative analysis. All three hypothesis was accepted for this study. Finally, a quick summary of the hypothesis was given.

## CHAPTER V

### Discussion

#### 5.1 Introduction

This chapter's goal is to present an explanation and final analysis of the findings from chapter 4. In addition, this chapter will outline how the findings and results influence the research topics for this project. Additionally, this chapter will connect the study's findings and earlier research, outline its limitations, and offer future research and practice implications. This study has a mixed method, and firstly the qualitative part has been analyzed using NVivo 12. In this part, 5 physical education instructors and 5 supervisors were interviewed. The researcher developed new codes and occasionally changed existing ones as they moved through them. These codes were analyzed, and themes were formed. Then these themes (13 themes) were reviewed, and frequency was found using cloud's center. Finally, the three constructs of group games curriculum as the Achievement of Knowledge objective (new curriculum, regular assessment, govt. support), Achieving psychokinetic objective (physical health, enhancing capabilities, skills, scientific methods, psychological aspects), Achieving emotional objective (cooperation, effective supervision, physical health) has been identified and concluded. Under emotional objective, the observation study explained that it demands Responsibility and discipline, Self-awareness, Self-control, competition, regulations, psychological balance, and Self-management. Figure 5 illustrates more about it. Under Knowledge Objective, the observation study explained that it demands Coordination and awareness, Group-related activities, Self-regulation and Decision making, Tactical understanding, and Intellectual and psychological skills. Figure 6 illustrates more about it. Under Psychokinetic objectives, the observation study explained that it demands developing more skills, strengthening effective and concept handling, Gearing, engagement, activation, and Developing manipulative skills. Figure 7 illustrates more about it. For the quantitative part, 218 respondents participated, including males and females and then means were calculated. Then T-Test was applied to know whether the statistical support that the population means values are statistically significantly different. Finally, the results showed a significant difference between the three themes regarding the gender of the respondents (p-value=0.000).

The physical education institutes are considered new compared to the other institutes in neighboring Arab countries and Iraq. These institutes' curricula must be reevaluated periodically to align with the desired objectives. This can be achieved through having the perspectives of specialized educational supervisors and instructors of group games in these institutes. To fill this research gap, this study has developed 4 specific objectives. This study has selected a mixed methods approach to achieve this research objective. These mixed methods of approach consist of the qualitative method (semi-structured interview, observational data) and the quantitative method. First, this study has conducted a qualitative analysis followed by a quantitative analysis. Qualitative analysis was performed by NVivo 12 software and quantitative analysis by SPSS. Several preliminary analyses and data diagnostics procedures were conducted first to ensure data reliability and validity. In the Qualitative approach, researchers could analyze the qualitative data in several ways. The data are represented using the study's Braun and Clarke (2006) methodology. A six-phase technique is presented by Braun and Clarke (2006) that can be utilized to carry out this kind of research (Braun & Clarke, 2006). This analysis inferred word frequency distribution along with three different thematic analyses. The findings of this analysis were fully discussed in chapter 4. In the quantitative approach, this study has conducted descriptive statistics, frequency distribution with bar charts, and the hypothesis test through an independent sample T-test. It was inferred that all the three-hypothesis got accepted, which implies that the result of the statistical analysis supports the hypothesis. The findings of this analysis were fully discussed in chapter 4. The following section will illustrate all four research objectives and their analysis types.

## **5.2 Addressing Research objective**

Going back to Table 20, indicates how the p-value for the knowledge, psycho-kinetic, and emotional objective is almost .000, which is significant. According to this study chapter 1, based on the research problem, this study has developed four specific research objectives. To achieve this research objective, a mixed methods approach has been followed. The first three research objectives were achieved through the Quantitative approach by T-Test analysis. The T-test was conducted using SPSS's latest version of the software. The last research objective, number 4, was achieved through a Qualitative approach by Thematic analysis. The thematic analysis was

conducted using NVivo software rather than manual quantitative data analysis. The NVivo software analysis the semi-structured interview data as well as observational data. The following Table 21 will illustrate more about it.

**Table 20.** Addressing research objectives

Research Objectives	Analysis	Status
Identifying to what extent the curricula of group games achieve the knowledge objective for the students at physical education institutes in Northern Iraq.	Quantitative approach (T-test)	Achieved
Identifying to what extent the curricula of group games achieve the psycho-kinetic objective for the students at physical education institutes.	Quantitative approach (T-test)	Achieved
Identifying to what extent the curricula of group games achieve the emotional objective for the students at physical education institutes.	Quantitative approach (T-test)	Achieved
Explore the perception of supervisors and instructors towards the content of the curriculum of group games taught in the institutes of physical education to achieve the knowledge, psycho-kinetic, and emotional objectives for the students	Qualitative approach  (Thematic analysis)	Achieved

### **Research Objective 1:**

The first research objective is to identify the extent to which the curricula of group games achieve the knowledge objective for the students at physical education institutes in north of Iraq. In the case of Research objective 1 and hypothesis number 1, as mentioned previously, for achieving the knowledge objective,  $F=46.451$  and  $P=0.000$ , the alternative hypothesis was accepted as the p-value is less than 0.05. Therefore, this study concludes that the first hypothesis regarding research objective one was accepted. Every social structure is always thinking about educating and developing the next generation. This phenomenon of education is one of foreseeing how society will change and what it will need to assure adaptability to various factors, such as the environment, technology, or legal requirements. Therefore, physical education institutes require extra precautions in group games curricula.

Numerous initiatives have been made to align the educational system with the shifting social realities and the world-class standards Iraq seeks to implement. New curricula for most school subjects were created as a consequence of new documents intended to regulate the educational system and respond to the desires of individuals in the government or ministries (Ha & Park, 2021; Selçuk & Karaca, 2021). This is because “the curriculum is principally a framework of learning experiences supplied to educators and digested by them. The facts faced throughout the educational process, the legal system, the social order, the learning demands, or the geographic and cultural setting in which this process occurs all influence how a topic is taught in schools (Ali, 2018; Ha & Park, 2021; Selçuk & Karaca, 2021). The ability to completely re-design and arrange educational activity on a global scale comes from the curriculum and its theory and practice elements, which are well-configured both at the conceptual and theoretical level and at the level of real experiences. Physical Education is a curriculum and extracurricular activity in per-university education (Ali, 2018; Do, 2020; Giraldo, Aguilar, Giraldo, & Toro, 2019; Ha & Park, 2021; Selçuk & Karaca, 2021).

Usually, the instructor is asked to define experiential, conceptual, analytical, and applied objectives. Knowledge Objectives are the learning goals, aims, or objectives of the Learning Component identified and categorized in terms of each aim's or goal's major focus (Ali, 2018; Do, 2020; Giraldo et al., 2019). Learning objectives assist physical and educational institutions in establishing realistic goals and achieving the objectives of their learning programs, such as group games or group activities. Knowledge tests examine students' comprehension of the topic and are aligned with learning objectives. Both are necessary to guarantee the success of physical educational initiatives (Giraldo et al., 2019; Ha & Park, 2021; Selçuk & Karaca, 2021).

### **Research Objective 2:**

The second research objective is to identify the extent to which the curricula of group games achieve the psycho-kinetic objective for the students at physical education institutes. In the case of Research objective 2 and hypothesis number 2, for achieving the psycho-kinetic objective,  $F=44.535$  and  $P=.000$  means the alternative hypothesis was accepted as the p-value is less than 0.05. Therefore, this study concludes that the second hypothesis regarding the second research objective was accepted.

A hypothesized psychic talent called psycho-kinetic; would enable someone to affect a physical network without engaging in physical contact (Van Dusen & Center, 2021). These abilities assist in group game curricula. It contributes to developing students'

motor skills; develops self-learning skills, and creativity; helps to achieve students' motor autonomy through adaptation and appropriateness; optimizes the orientation and spatial-temporal structure; helps in the development of socio-behavioral gains (Esposito, Ceruso, & D'Elia, 2019; S. S. Mohammed, 2022; S. S. Mohammed & Baysen, 2022; Van Dusen & Center, 2021). Additionally, psycho-kinetic contributes to strengthening cognitive processes, beginning with effective handling and ending with concept handling; contributes to effort perception and evaluation as a result of different movements; contributes to personal movements or other environmental movements: gearing, engagement, activation, etc. (Esposito, Ceruso, & D'Elia, 2019; S. S. Mohammed, 2022; S. S. Mohammed & Baysen, 2022; Van Dusen & Center, 2021). Further, it will also promote to development of locomotor skills; contributes to the development of non-locomotor skills. Finally, the content of group games curricula contributes to developing manipulative skills, which is an integral part of the psycho-kinetic objective (Esposito, Ceruso, & D'Elia, 2019; S. S. Mohammed, 2022; S. S. Mohammed & Baysen, 2022; Van Dusen & Center, 2021).

### **Research Objective 3:**

The third research objective is to identify the extent to which the curricula of group games achieve the emotional objective for the students at physical education institutes. In the case of Research objective 3, along with hypothesis number 3, for achieving the emotional objective,  $F=56.983$  and  $P=.000$  means the alternative hypothesis was accepted as the p-value is less than 0.05. Therefore, this study concludes that the third research objective's third hypothesis was accepted. Emotional objectives are the objectives for someone to enhance overall emotional health (Alcaraz-Muñoz, Cifo Izquierdo, Gea García, Alonso Roque, & Yuste Lucas, 2020; Zhai & Han, 2022). This might be anything, such as managing someone's anger, being content with what you have, or remaining upbeat in all circumstances. These emotional objectives are a crucial part of group games. Physical and educational institutions must ensure emotional objectives in group games curricula for better performance. The content of group games curricula develops responsibility and discipline among the students, develops healthy activities; contributes to building students' personalities; develops the physiological balance among students; trains students to face situations (Gao, Shu, & Ma, 2022; Hussein & Yaqoubi, 2022; Z. Wang, Wang, & Computing, 2022). Further, it contributes to developing the ability to devolve through partners (teammates, opponents, officials); hence it contributes to developing self-management



in students (Bechter, Whipp, Dimmock, & Jackson, 2021; Cañabate Ortiz, Santos Verdaguer, Rodríguez, Serra Putellas, & Colomer, 2020; Lee, Richards, & Washburn, 2021). Furthermore, the content of group games curricula contributes to developing responsible decision-making in students. Finally, the content of group games curricula contributes to developing self-awareness in students and developing relationship management in students (Bechter et al., 2021; Gao et al., 2022; Lee et al., 2021; Z. Wang et al., 2022). Group games are one of the important aspects of Physical education. A group-dynamic game is a hands-on learning activity that educates individuals about themselves, their interpersonal connections, and how groups operate from a team dynamics or social psychology perspective (Backman & Barker, 2020; Jeong & So, 2020). Games in groups offer significant advantages over solo play and many other pursuits. It can help children become better citizens by teaching them the nuances of living in a society. They introduce young children to the fundamentals of collaboration, which are essential life skills. Kids learn via play.

#### **Research Objective 4:**

Exploring the perception of supervisors and instructors towards the content of the curriculum of group games taught in the institutes of physical education to achieve the knowledge, psycho-kinetic, and emotional objectives for the students is the research objective 4. In the case of research objective 4, it was achieved through a qualitative study. Firstly, for a semi-structure interview, this thematic analysis illustrates the three constructs of group games curriculum as Achievement of Knowledge objective (new curriculum, regular assessment, govt. support), Achieving psychokinetic objective (physical health, enhancing capabilities, skills, scientific methods, psychological aspects), Achieving emotional objective (cooperation, effective supervision, physical health). In addition, this study inferred a word frequency distribution regarding the group games curriculum. Secondly, for observational data, this study illustrated three different network charts, which were illustrated in the chapter 4 Under Psychokinetic objectives the observation study explained that it demands Developing more skills, Strengthening the effective and concept handling, Gearing, engagement, activation, Developing manipulative skills. Under emotional objective the observation study explained that it demands Responsibility and discipline, Self-awareness, Self-control, competition, regulations, psychological balance, Self-management.

Under Knowledge Objective the observation study explained that it demands Coordination and awareness, Group-related activities, Self-regulation and Decision making, Tactical understanding, Intellectual and psychological skills.

Back to the research questions raised in this study (Does the content of the curriculum of group games taught in the institutes of physical education achieve the students' knowledge, psycho-kinetic, and emotional objectives?), the curricula of group games in institutes of physical education in north of Iraq regarding the students' knowledge, psycho-kinetic, and emotional objectives needs improvement. For the other research question (What is the perception of supervisors and instructors towards the content of the curriculum of group games taught in the institutes of physical education to achieve the knowledge, psycho-kinetic, and emotional objectives for the students?), it seems that instructors and supervisors lack the appropriate knowledge of how to achieve the knowledge, psycho-kinetic, and emotional objectives in these institutes. In this way, all three hypotheses of the study have not been supported.

### **5.3 Implication for practice**

Physical, and educational institutions must ensure a new curriculum design to achieve the knowledge objectively. Curriculum design organizes lessons, readings, activities, and evaluations to achieve learning goals. The three styles of curriculum design are as follows. Problem-cantered, learner-cantered, and subject-cantered design are the three types; this curriculum needs to be evaluated frequently.

An effective curriculum, along with regular assessment, offers a quantifiable strategy and framework for providing a high-quality physical education to instructors, students, school administrators, and community stakeholders (Guo, 2020; Yubing Wang & Chen, 2019; Yan Wang, Muthu, Sivaparthipan, & Microsystems, 2021).

The curriculum outlines the standards, basic skills, and learning goals students must meet to move on to the next level (Guo, 2020; Yubing Wang & Chen, 2019; Yan Wang et al., 2021). Finally, Government involvement in physical education generally takes place in two ways: through the creation of sports policies and legislation for a national curriculum for schools (Maksymchuk, Sitovskyi, Savchuk, Maksymchuk, Frytsiuk, Matviichuk, Demchenko, Babii, Tsymbal-Slatvinska, Nikitenko, et al., 2018; Vasconcellos et al., 2020). Without government supporting a new curriculum and regular assessment is quite impossible in a country like Iraq, especially in the

northern region of the country. The government advocates for a culture that respects athletic such as group games ideals and provides opportunities for everyone to pursue active, healthy lives (Maksymchuk, Sitovskyi, Savchuk, Maksymchuk, Frytsiuk, Matviichuk, Demchenko, Babii, Tsymbal-Slatvinska, Nikitenko, et al., 2018; Vasconcellos et al., 2020).

To achieve the psychokinetic objective, physical and educational institutions need to ensure physical health and enhance capabilities & skills, scientific methods, and psychological aspects. Group games ensure physical health, which is claimed by several authors (Amini, Salehi, Tohidi Tabar, Bakhshoodehnia, & Salmani, 2021; Jiao, Traverso, & Gai, 2021; S. S. Mohammed, 2022; S. S. Mohammed & Baysen, 2022; Vayanou, Katifori, & Ioannidis, 2021). These arguments were also investigated through the empirical investigation with a supportive conclusion. In addition to that group, games ensure and promote capabilities & skills among the physical, educational institution students. Therefore, a physical educational institution requires scientific methods for group games to promote overall performance. Other than scientific methods, which result in huge financial loss and emotional damage for the students (S. S. Mohammed, 2022; S. S. Mohammed & Baysen, 2022). Physical and educational institutions must ensure adequate cooperation and effective supervision to achieve the emotional objective. Group games are those in which participants work together to achieve a common objective. A group game seeks to emphasize less competitiveness and more the social aspects of working in teams and groups. It avoids emotional outbursts, humiliation, and meanness that frequently happen in competitive settings (S. S. Mohammed, 2022; S. S. Mohammed & Baysen, 2022; Vayanou et al., 2021). Because they encourage courteous interaction and enjoyment of one another's company, cooperative games help kids form wholesome connections. Children learn how to share, understand others' feelings, and become better through cooperative games and play. Destructive responses change into constructive ones when pupils cooperate rather than compete. However, this benefit will not be achievable unless ensuring effective supervision (S. F. Mohammed, 2021; Rajeh, 2022). The foundation of supervision is mutual respect and trust. To ensure a good fit on a personal level, an expertise match, and to fulfil cultural demands, supervisees are given a choice of supervisor (Maksymchuk, Sitovskyi, Savchuk, Maksymchuk, Frytsiuk, Matviichuk, Demchenko, Babii, Tsymbal-Slatvinska, Nikitenko, et al., 2018; S. F. Mohammed, 2021; Rajeh, 2022).

The goal of the supervisory sessions is understood by both the supervisor and the mentor. As it encourages regular communication, problem-solving, and enhanced teamwork, supervision may help create a more encouraging, loving, and joyful environment for group games. (S. F. Mohammed, 2021; Rajeh, 2022; Williams, Martinasek, Carone, & Sanders, 2020). Successful managers are morally upright people. They exude honesty, sincerity, constancy, and credibility, notwithstanding the potential that they might offend someone, engage in uncomfortable confrontation, or experience unfavorable outcomes (Maksymchuk, Sitovskyi, Savchuk, Maksymchuk, Frytsiuk, Matviichuk, Demchenko, Babii, Tsymbal-Slatvinska, Nikitenko, et al., 2018; S. F. Mohammed, 2021; Rajeh, 2022; Vasconcellos et al., 2020; Williams et al., 2020). They are sincere and dependable whether they speak or behave. Therefore, physical and educational institutions need to appoint well-educated and hardworking supervisors to effectively supervise the games to promote the group games. Secondly, for observational data, this study illustrated three different network charts, which were illustrated in chapter 4 under Psychokinetic objectives. The observation study explained that it demands Developing more skills, strengthening effective and concept handling, Gearing, engagement, activation, and developing manipulative skills. Under emotional objective, the observation study explained that it demands Responsibility and discipline, Self-awareness, Self-control, competition, regulations, psychological balance, and Self-management. Under Knowledge Objective, the observation study explained that it demands Coordination and awareness, Group-related activities, Self-regulation and Decision making, Tactical understanding, and Intellectual and psychological skills.

#### **5.4 Conclusion**

This chapter discussed the results from the practical part of the thesis based on the literature discourse. It answered the four research objectives and hypotheses formed at the study's beginning. Then based on that, the implication of the practice has been presented.

## CHAPTER VI

### Conclusion and Recommendations

#### 6.1 Introduction

This chapter highlights the study summary and summarizes the research findings. Furthermore, the findings included suggestions for improving physical and academic performance. The applications and insights for academia and industry were also investigated intensively. The chapter concludes with a full discussion of the research's shortcomings, recommendations, and future studies. Physical education addresses the learning objectives of psychomotor, cognitive, and emotional learning at the same time. Due to the growing interest in this subject, physical education is now expected to describe more explicitly and demonstrate how it leads to social and emotional learning across the curriculum. High-quality, student-centered physical education can easily combine social and emotional learning capabilities (such as self-awareness, self-management, social awareness, interpersonal skills, and responsible decision-making). The physical education institutions are said to be brand-new in comparison to comparable facilities in neighboring Arab countries and even Iraq. The curricula of these institutes must therefore be constantly examined to ensure they align with the stated goals. Group game instructors and specialized educational supervisors in these institutions might contribute their perspectives to achieve this. The four specific goals of this study were created to fill up the literature gaps. The physical and educational institutions must ensure physical health and improve capacities and skills, scientific methodologies, and psychological components in order to attain the psychokinetic purpose. Some scholars assert that playing together in groups ensures physical health. These arguments were also looked at empirically, and the results were conclusive. Games ensure and promote abilities and talents among the physical and academic institution pupils in addition to that group. Therefore, scientific methodologies for group games are necessary for a physical education setting to enhance overall performance in contrast to scientific procedures, which cause the pupils to suffer severe financial loss and mental harm. This study's methodological elements have been improved, and the theory employed has also been improved. A complete conceptual framework has been created focusing on the group games curriculum introduced in academic settings. A qualitative data investigation has also led to the recommendation

of a group games curriculum. The proposed tools or things could be used for future data collection.

## **6.2 Contribution of the Study**

This research study has both theoretical contributions in academia as well as practical contributions in the industry. It is anticipated that this research's outcomes will support upcoming academic and industry researchers in different geographical locations. The beneficial findings of this study also provide a roadmap for policymakers and top Iraqi educators to participate in expanding their proactive strategies. They can nudge legislators or oversight bodies in various bureaus to increase accountability and openness concerning group game curricula. The following are a few key points regarding the contribution of this study. This study determines three dimensions of group games curriculum: Achievement of Knowledge objective, psychokinetic objective and emotional objective. In addition to that, this study identified each dimension's key factors, such as the Achievement of Knowledge objective (new curriculum, regular assessment, govt. support), Achieving psychokinetic objective (physical health, enhancing capabilities, skills, scientific methods, psychological aspects), Achieving emotional objective (cooperation, effective supervision, physical health) This study further developed the methodological aspects, and the theory used in this study has further improved. A complete conceptual framework has been established focusing on the group games curriculum, which was added for the first time in academia. The biggest strength of this conceptual framework is that it not only considers three specific dimensions but has been accompanied by each dimension's key factors. Based on qualitative data analysis, group game curriculum items have also been proposed. These proposed items or instruments could be used in future data collection. Physical and educational institutions could be benefited from this study as this study will assist in physical and educational institutions' policy-making regarding group games curriculum.

## **6.3 Future Research work and Recommendations**

There are three specific recommendations from this study. Firstly, under the knowledge objective, this study recommended that northern Iraqi physical and educational institutions require coordination and awareness, group-related activities,

self-regulation and decision-making, tactical understanding, and intellectual and psychological skills in the group games curriculum. Under knowledge objectives, in group games, coordination and awareness are predominant factors for assessment. Good coordination can help athletes perform better. As one becomes older, becoming busier can help one stay healthier overall. As a result, while the traditional measures of cardiovascular fitness, strength, and flexibility are significant, it is also beneficial to pay attention to how people coordinate movement (Jiao, Traverso, & Gai, 2021; Morales-Belando, Calderón, & Arias-Estero, 2018). Further, awareness and coordination are crucial for optimal performance in sports activities. Coordination makes it easier to carry out planned and directed motions, enhancing fundamental physical abilities, assisting the body in working as a unit, and attaining the right technical execution of group games or any other program (Amini et al., 2021; Vayanou et al., 2021). When one practices with other group members for enjoyment or fitness, they engage in a group activity. A team game like soccer, basketball, or netball can be used as a group exercise. It could encourage and support using stationary bikes or cardio equipment (Amani et al., 2019; Jiao, Traverso, & Gai, 2021; Morales-Belando et al., 2018). The capacity for an individual to use and maintain techniques that encourage healthy emotional awareness and expression is known as self-regulation. According to many studies, self-regulation is a key factor behind sports' wellbeing and performance. Self-regulation has been associated with reduced physical and cognitive distress and improved decision-making, physiology, and competition preparedness. Since physical education encompasses all parts of the curriculum, including educational, physical, psychological, and emotional components, it significantly improves the instructors' personality compared to other disciplines. Additionally, physical education motivates individuals to teach healthy behaviors. Therefore, by enabling the students to develop the needed academic, physical, and kinetic abilities and engage in other related activities in the classroom, the curriculum should theoretically have the ability to achieve the intended objectives. Bloom classified physical education objectives into emotional, psycho-kinetic, and educational. The instructors should identify traditional and behavioral objectives while developing their educational strategies. Educational objective displays the education policy of the institute, which defines the basis of desired objectives. Consequently, these objectives lead towards achieving educational goals by modifying the curricula content and adopting the most convenient and adequate teaching methods.

Group games or sports and athletic training are based on technical abilities; without the tactical capacity to employ those talents, they become pointless and boring (Jiao, Traverso, & Gai, 2021; Vayanou et al., 2021). Teaching tactical skills involves all three of the tactical triangle's essential elements. Tactical awareness is crucial to game success and is the ability to identify and appropriately address tactical challenges that arise during a group game. Responses can be both on-the-spot, like passing and shooting, and off-the-spot, like supporting and covering (Jiao, Traverso, & Gai, 2021; Vayanou et al., 2021). In addition to improving focus and body language in group activities, psychological skills training's methods and techniques can help individuals develop personal traits like self-worth and constructive, productive skills and behaviors (Amani et al., 2019; Amini et al., 2021; Morales-Belando et al., 2018).

Secondly, Under Psychokinetic objectives, this study recommended that physical and educational institutions require Developing more skills, strengthening effective and concept handling, Gearing, engagement, activation, and Developing manipulative skills in group games curriculum. Thirdly, under emotional objective, this study recommended that physical and educational institutions require Responsibility and discipline, Self-awareness, Self-control, competition, regulations, psychological balance, and Self-management in group games curriculum. There are several future research opportunities in reading this study. The following are a few insights. Soon, a study could focus on mixed methods with different study phases. Further, a comparative study could be conducted on private and public institutions to assess their and developing group games curricula. Furthermore, a large sample of data might be gathered to run the structural equation modeling. Finally, secondary data may be employed to reach a reasonable conclusion on the group games curriculum.



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**APPENDIXES**

## Appendix A

30.07.2021

Dear Sherzad Sabir Mohammed

Your application titled **“Assessment of Curricula Content of Group Games in Physical Education for Achieving Educational Objectives”** with the application number NEU/ES/2021/714 has been evaluated by the Scientific Research Ethics Committee and granted approval. You can start your research on the condition that you will abide by the information provided in your application form.

Assoc. Prof. Dr. Direnç Kanol

Rapporteur of the Scientific Research Ethics Committee




**Note:** If you need to provide an official letter to an institution with the signature of the Head of NEU Scientific Research Ethics Committee, please apply to the secretariat of the ethics committee by showing this document.

## Appendix B

Legal Translation  
Sunday, December 4, 2022

**Kurdistan Regional Government – Iraq  
Presidency of Council of Ministers  
Ministry of Education  
General Directorate of Institutions and Training  
Directorate of Institutions**



No.: G/2169  
Date: 21-10-2021

Directorate of Institutions -Outbox- (Sealed)

*To/All Physical Educations Institutions  
Ref/Permission*


Upon the agreement of the Director General of Institutions and Training, we are asking you gently to ease the procedures of Mr. (SHERZAD SABIR MOHAMMED) the aforementioned is a (PHD) student and that his thesis is on Physical Education Institutions under the title: (ASSESSMENT OF CURRICULA CONTENT OF GROUP GAMES IN PHYSICAL EDUCATION FOR ACHIEVING EDUCATIONAL OBJECTIVES).

(Signed)  
**Othman Rasheed Ibrahim**  
Director of Institutions  
21-10-2021

Cc:

- ✓ General Director's Office.
- ✓ General Directorate of Institutions and Training/Directorate of Institutions ... with initiations.
- ✓ Circular.

Ahmed Bureau for Legal Translation  
Erbil, Aras Str. In front of B. G. of Education-Erbil  
00964 750 735 9988  
Aydiraq513@gmail.com



**Appendix C****Questionnaire**

This questionnaire aims to assess the curricula content of group games in physical education for achieving educational objectives. The results of the study will advance our understanding of the educational objectives of physical education. All responses are anonymous, and your participation in this study is entirely voluntary. There are no benefits or disadvantages of your involvement, and you are free to discontinue at any time. However, your participation is very much appreciated.

**Part A: Demographic Information**

**Directions:** Please check '√' where applicable.

1. Gender

Male     Female

2. Your educational background

Certificate Diploma

BS/BA Degree

Master's Degree

Other please specify \_\_\_\_\_

**3. Your teaching experience \_\_\_\_\_ in years**

## Section B: Curricula of Group Games in Achieving Knowledge Objective

**Directions:** For each statement below, please use the following scale to indicate your perception about group games curricula in achieving the knowledge objective described by each item. Please tick '√' in the appropriate box. 1= significantly disagree, 2=disagree, 3=none, 4=agree, and 5=extremely disagree

Statement		1	2	3	4	5
1	The content of group games curricula contributes to increasing students' awareness.					
2	The content of group games curricula contribute to evaluating the problems students are facing					
3	The content of group games curricula enhances students' intellectual and psychological skills.					
4	The content of group games curricula contributes to the discovery and awareness of new forms of physicality.					
5	The content of group games curricula contributes to relating group capacity (class, team, competition, regulations, and self-control).					
6	The content of group games curricula helps to activate thinking and action to create change.					
7	The content of group games curricula contributes to students learning related to strategies					
8	The content of group games curricula contributes to developing self-regulation in students					
9	The content of group games curricula develops self-learning skills and creativity					
10	The content of group games curricula contributes to developing tactical understanding and decision-making learning.					

## Section C: Curricula of Group Games in Achieving the Psycho-Kinetic Objective

**Directions:** For each statement below, please use the following scale to indicate your perception about group games curricula in achieving the psycho-kinetic objective described by each item. Please tick ‘√’ in the appropriate box. 1= significantly disagree, 2=disagree, 3=none, 4=agree, and 5=extremely disagree

Statement		1	2	3	4	5
1	The content of group games curricula contributes to developing students’ motor skills.					
2	The content of group games curricula develops self-learning skills and creativity.					
3	The content of group games curricula helps to achieve students’ motor autonomy through adaptation and appropriateness.					
4	The content of group games curricula optimizes the orientation and spatial-temporal structure.					
5	The content of group games curricula helps in the development of sociobehavioural gains.					
6	The content of group games curricula contributes to strengthening intellectual processes starting from effective handling and reaching concept handling.					
7	The content of group games curricula contributes to effort perception and evaluation as a result of various movements.					
8	The content of group games curricula contributes to personal movements or other environmental movements:					
	gearing, engagement, activation etc.					



9	The content of group games curricula contributes to developing locomotors skills.					
10	The content of group games curricula contributes to developing non-locomotors skills.					
11	The content of group games curricula contributes to develop manipulative skills.					

#### Section D: Curricula of Group Games in Achieving the Emotional Objective

**Directions:** For each statement below, please use the following scale to indicate your perception about group games curricula in achieving the emotional objective described by each item. Please tick '√' in the appropriate box. 1= significantly disagree, 2=disagree, 3=none, 4=agree, and 5=extremely disagree

Statement		1	2	3	4	5
1	The content of group games curricula develops responsibility and discipline					
2	The content of group games curricula develops healthy activities.					
3	The content of group games curricula contributes to building students' personality.					
4	The content of group games curricula develops the physiological balance among students					
5	The content of group games curricula trains students to face situations.					
6	The content of group games curricula contributes to developing the ability to devolve through partners (teammates, opponents, officials).					

7	The content of group games curricula contributes to developing self-management in students.					
8	The content of group games curricula contributes to developing responsible decision-making in students.					
9	The content of group games curricula contributes to developing self-awareness in students.					
10	The content of group games curricula contributes to developing relationship management in students.					

## Appendix D

### Interview Protocol

Semi- structured interview schedule for physical education institutes instructors and supervisors

Date:

Time:

Location:

Respondent:

Opening question

1. Introduce yourself- tell us who you are, how many years have you been teaching physical education and at what levels?

Introductory question

2. Why did you get into the physical education teaching profession?

- **Research Question: What is the perception of supervisors and instructors towards the content of the curriculum of group games taught in the institutes of physical education in northern Iraq achieve the knowledge, psycho-kinetic, and emotional objectives for the students?**

1. As an instructor or supervisor how do you define group games curriculum?
2. What are objectives and importance of group games curriculum?
3. How will you share your perception regarding the achievement of knowledge objective of group games curriculum?
4. What is your opinion regarding the group games curriculum in achieving the psychokinetic objective?

5. How you will express regarding the group games curriculum in achieving the emotional objective?
6. What kind of knowledge, do you think should add in the group games curriculum?
7. What improvements have you observed within the group games curriculum?
8. What is your overall comment on group games curriculum?
9. Is there anything else you would like to add?

## Appendix E

### OBSERVATION PROTOCOL

Province		Institute	Class	Observer
<b>Date</b>				
<b>Knowledge Objective</b>				
<b>Objectives of group games curricula</b>		<b>Evidence to support statements</b>		
Does the content of group games curricula cover the knowledge of coordination and awareness?				
1. Does the content of group games curricula provide knowledge to students to participate in group related activities?				
2. Does the content of group games curricula cover the knowledge of self-regulation and decision making?				
3. Does the content of group games curricula provide the knowledge of tactical understanding?				
4. Does the content of group games curricula provide the knowledge				

of intellectual and psychological skills?	
<p><b>Note:</b> _____</p> <p>_____</p>	
<b>Psychokinetic objectives</b>	
5. Does the content of group games curricula contribute to developing motor skills?	
6. Does the content of group games curricula provide additional support in strengthening the effective and concept handling?	
7. Does the content of group games curricula cover the knowledge of personal movements or other environmental movements, gearing, engagement, activation?	
8. Does the content of group games curricula contribute to developing manipulative skills?	
<p><b>Note:</b> _____</p> <p>_____</p>	

### Emotional Objective

<p><b>9.</b> Does the content of group games curricula cover the knowledge of responsibility and discipline?</p>	
<p><b>10.</b> Does the content of group games curricula cover the knowledge of self-awareness?</p>	
<p><b>11.</b> Does the content of group games curricula cover the knowledge of self-control, competition, regulations?</p>	
<p><b>12.</b> Does the content of group games curricula cover the knowledge of psychological balance?</p>	
<p><b>13.</b> Does the content of group games curricula cover the knowledge of self-management?</p>	
<p><b>Note:</b> _____</p> <p>_____</p>	

**Appendix F**

Experts	Name	Proficiency/Experiences	Place of work
1	Prof.dr.Jasm Mohammed Al-rumi	kinaesthetic learning	Mosul University
2	Prof.dr.Saad Basm Jamil	Measurement and Evaluation	Mosul University
3	Prof.dr Goran Maruf Qadir	Measurement and Evaluation	Koya University
4	Prof.dr. Qusay Hazem Mohammed	Methods of Teaching	Mosul University
5	Asst.prof.dr.Nashwan Mahmood Al-sefaar	Methods of Teaching	Mosul University
6	Dr. Nazar Mohammed Tawfiq	Translation Studies	University Putra Malaysia